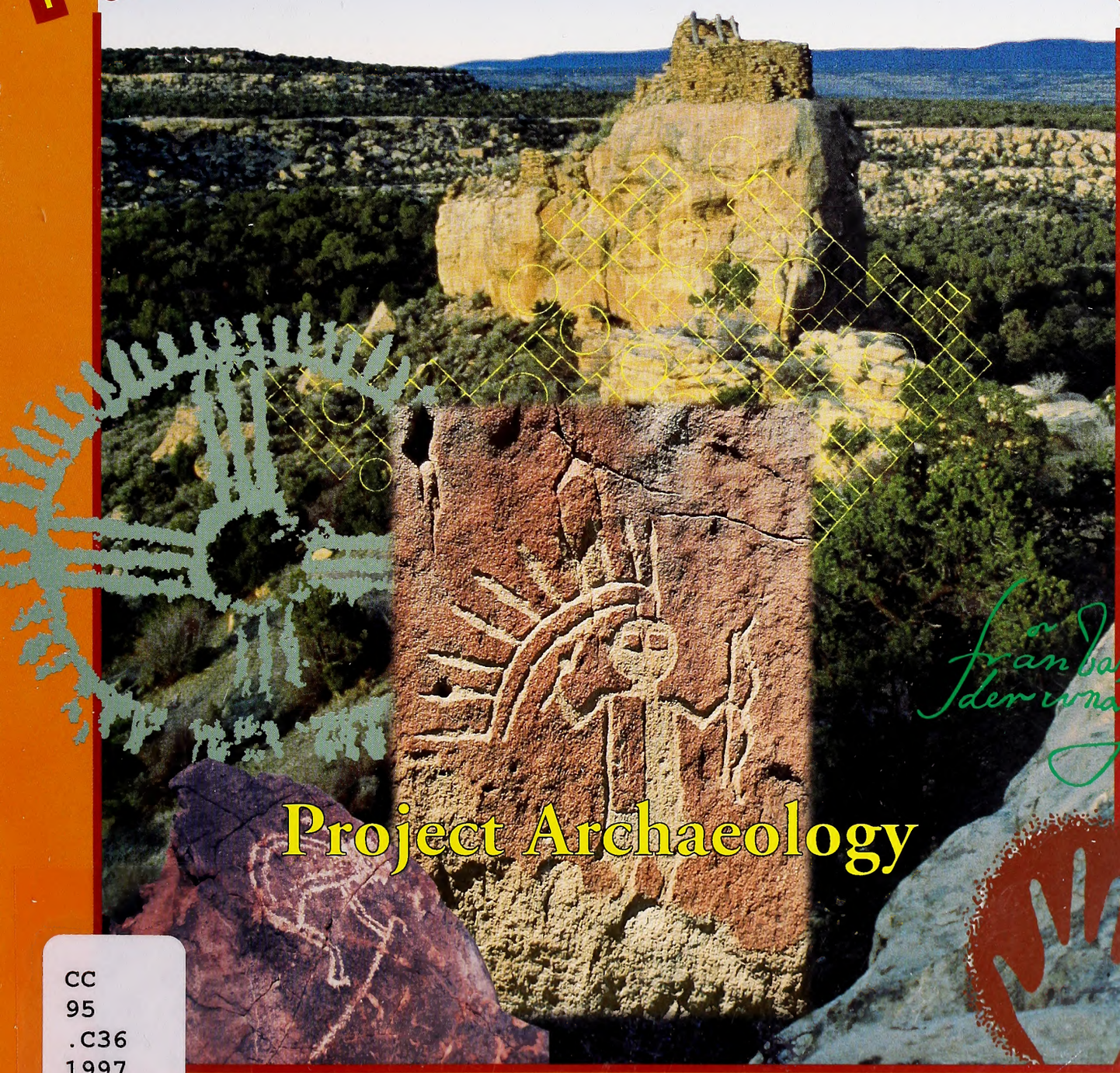
NTRIGUE OF THE PAST

Discovering Archaeology in NEW MEXICO



Project Archaeology

U. S. Department of the Interior
Bureau of Land Management

Intrigue of the Past

Discovering Archaeology in NEW MEXICO

Petroglyph from the Three Rivers area of New Mexico, a Jornada Mogollon site.

Intrigue of the Past

Discovering Archaeology in NEW MEXICO

U.S. Department of the Interior
Bureau of Land Management
Heritage Education Program



Intrigue of the Past: **Discovering Archaeology in New Mexico**
A project of the
U.S. Department of the Interior, Bureau of Land Management
Heritage Education Program and Phillips Petroleum Company

Published by
BLM's Heritage Education Program *Project Archaeology Team*
Margaret Heath, Chief Heritage Education Project Manager
Wayne Rice, Visual Information Specialist
Jeanne Moe, Project Archaeology Coordinator
Cynthia Ramsay, Staff Assistant

Authors
Catherine M. Cameron, Ph. D.
Stephen H. Lekson, Ph. D.

Lesson Plans
Donna Benge, Jeanne M. Moe and Margaret A. Heath

Contributors
Steve Fosberg, *BLM New Mexico*
Ralph Leon, *formerly BLM New Mexico*
Roy Paul, *Editorial and Typographical Consultant*

For additional information contact
The BLM Heritage Education Program
P.O. Box 758, Dolores, Colorado 81323
Phone: Voice (970) 882-4811 • TDD (970) 882-7593 • FAX (970) 882-7035
E-mail cramsay@co.blm.gov

Printed on recycled paper

Contents

Introduction

Intrigue of the Past: Discovering Archaeology in New Mexico is part of the Bureau of Land Management's (BLM's) *Project Archaeology* program for teachers. In 1991, BLM embarked on its Heritage Education Program to educate young Americans about their nation's rich cultural heritage and the need to preserve and protect it. *Project Archaeology* is the cornerstone of the Heritage Education Program.

The ultimate goal of *Project Archaeology* is to educate students to take responsible actions toward our archaeological heritage. The fragile record of our past is increasingly threatened throughout the world. Archaeologists, public land managers and concerned citizens see education as a primary means of reversing this trend.

The study of archaeology can lead not only to a greater understanding of the past, but it can help us to understand the present. Archaeological studies give us information about past environments, how humans interacted with those environments, and about environmental change. This invaluable information will help us in planning and managing for future environments.

Studying the past also gives us a sense of place and connectedness in a fast changing world. There is a comfort in connecting with people and places gone by. At risk students often lack this sense of place, especially if their family is very mobile or cut off from their extended family. A study of past peoples and places can help them connect to the idea of a past, even if it is not the specific past of their people.

BLM manages approximately one eighth of the United States or 270 million acres of land, primarily in eleven western states. Of the estimated five million cultural sites on those lands, only 9.9 million acres (15,468 square miles) have been surveyed. This is equal to a 5.5-mile swath stretching from Washington, D.C. to San Francisco.

BLM archaeologist John Douglas calculated that "If 150 BLM archaeologists did nothing else but inventory, including field survey and recordation and records maintenance, each one could average maybe 1000 acres per month, year round. This would total 150,000 acres per month, or 1.8 million acres per year. At that rate, the 270 million acres of BLM lands could be inventoried (first time around) in about 150 years. Of course the work those archaeologists are doing now would not get done, unless BLM hired another 150 archaeologists."

Since the Bureau can't afford to hire 150 archaeologists for 150 years, we must depend on you—the Public—and especially teachers and the future generations they teach to help us preserve and protect the past. Sites on public lands are being vandalized at an alarming rate. We can't monitor every site 24 hours a day, 365 days a year. However, a committed public can help us control the looting.

BLM's *Project Archaeology* program is designed to introduce archaeology into classrooms. Classroom-tested lessons in archaeology are presented in *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades,*. Student materials and state-specific information are contained in *Intrigue of the Past: Discovering Archaeology in New Mexico.* The lessons are broad based and interdisciplinary. They may be used singly to enhance and supplement other curricula or they can form a separate curricular unit.

Dr. Catherine Cameron and Dr. Steve Lekson wrote the original text. Karen Jackson Laubenstein, formerly Writer-Editor of the BLM Heritage Education Team, initially edited the book and created the glossary. Roy Paul assisted with the final story editing. Wayne Rice, Visual Information Specialist for the Team, designed the publication layout and the graphic art. Roy Paul did the final copy editing. Cindy Ramsay assisted with word lists and many other tasks, large and small. Donna Benge and Jeanne Moe contributed many valuable ideas to the lessons.

We extend our gratitude to Phillips Petroleum Company for providing funding for the color cover. Thanks goes to Charles Wheeler of Western Cultural Resource Management, Inc. for his creativity in including a public education component in their proposed mitigation project to Phillips. Thank you to Robert Wirtanen of Phillips for his enthusiastic endorsement of the project and to BLM Farmington Office and the New Mexico State Historic Preservation Office for their support as well.

We also thank Steve Fosberg and Ralph Leon, of the New Mexico Bureau of Land Management for their assistance with all kinds of arcane questions and needs. The staff at the Anasazi Heritage Center, particulary Victoria Atkins, provided valuable assistance with archaeological questions. Numerous individuals reviewed drafts of the handbook and provided useful suggestions. Thanks also to the Navajo Nation Department of Highway Safety, Window Rock, Arizona, for providing information on Narbona Pass. Finally we are indebted to the teachers who reviewed these lessons for us and who gave us their valuable suggestions for improvement.

Finally, thank you to Lynn Sebastian, New Mexico State Historic Preservation Officer for her staunch support of *New Mexico Project Archaeology*. Thank you to Carol Ellick for coordinating it, and to the teachers and archaeologists who are teaching it. You have waited through the furlough and our tight schedule for this book. We appreciate your patience.

Margaret A. Heath
Bureau of Land Management
Chief Heritage Education Project Manager

Foreword

The New Mexico Bureau of Land Management is proud to play a part in the Bureau's national *Project Archaeology* campaign. This major pillar in our commitment to foster heritage education is designed to offer top quality resource guides and innovative curriculum materials to classroom teachers. *Discovering Archaeology in New Mexico* contains current essays on the prehistory and history of the Land of Enchantment as well as a directory of print and multi-media materials which can be incorporated into classroom teaching. A surprising amount of material is available and can be applied across a range of classroom subjects. Teachers are encouraged to contact the organizations and individuals listed in the Resource Guide so that the most recent materials can be obtained for classroom use.

The New Mexico Bureau of Land Management has long supported heritage education in this state. Staff archaeologists routinely offer classroom lectures and presentations. Tours of sites and sponsored field schools provide students with the opportunity to learn site recording and excavation techniques. We fabricated traveling museum exhibits to introduce new data and artifacts to remote sections of the state. Classroom teaching trunks intrigue youngsters with stimulating hands-on activities. We offer a popular publication series to distribute current findings in archeological and historical research to the public in a comprehensible and non-technical manner.

The New Mexico BLM constantly seeks new partners in the heritage education arena. Through an assistance agreement with the Santa Fe Indian School, interactive computer interpretive programs dealing with the history of ancestral pueblo ruins were developed. The school's *Four Corners: The Past Meets the Present* CD-ROM was awarded First Place at the First International Native American Film Festival. A major effort is now underway to develop a state-of-the-art Camino Real International Heritage Center between Socorro and Truth or Consequences. We expect the heritage center will offer a host of new learning materials and educational tools for school children in central and southern New Mexico.

Many individuals deserve our sincere thanks for preparing, improving, and distributing materials contained in this volume. Dr. Stephen Lekson and Dr. Catherine Cameron wrote the cultural essays on the prehistory and history of New Mexico. The resources guide was assembled by Loni Viklund. Dr. Lynne Sebastian has supported *Project Archaeology* with funding from the State Historic Preservation Office, making teacher workshops and project archaeology newsletters possible. Carol Ellick traveled throughout our state testing draft materials at numerous teacher/archaeologist workshops. Final editing and production was completed by the BLM's Heritage Education Team based out of the Anasazi Heritage Center.

New Mexico is blessed with the fact that so many of our citizens can trace their ancestry back hundreds and thousands of years within the region. We live in a multi-cultural state with many vibrant, complementary and even competing cultures. Heritage education, and *Project Archaeology* in particular, can foster an appreciation for multiple cultural perspectives and learning styles. In an age of racial and ethic tensions around the world, these goals become increasingly important.

Stephen L. Fosberg
New Mexico Bureau of Land Management
State Archeologist

Preface

The Bureau of Land Management's invitation in 1992 to write the following essays was exciting. I was pleased to be given an opportunity to help the children of New Mexico learn about the rich cultural heritage of this place — a past that stretches back more than 10,000 years. The earliest families came to New Mexico following herds of large animals across the grasslands. Later families began to grow corn on sand dunes or around springs. New Mexico families constructed the huge stone monuments in Chaco Canyon and built lively adobe villages on the Rio Grande. The people of New Mexico greeted the Spanish when they arrived in 1540 and eventually these Spanish visitors became New Mexicans too. When Anglo families came in the 1800s, they too were captivated by the Land of Enchantment and added to the abundant cultural mix. The children of New Mexico, from Raton to Silver City and Roswell to Farmington, need only look at the ground to find pieces of the past and evidence of other children and families who came before them. I am happy to help them fit those pieces together into the story of New Mexico.

The essay on the Mogollon was written by Stephen H. Lekson of the University of Colorado Museum. LouAnn Jacobson, now Director of BLM's Anasazi Heritage Center, invited me to submit the essays and gave helpful advice as they were developed. The BLM Heritage Education team, including Megg Heath, Karen Jackson Laubenstein, and Roy Paul have done a wonderful job of making the essays appropriate for grade school children. I hope that *Project Archaeology* becomes a regular part of the New Mexico school curriculum!

Catherine Cameron
University of Colorado

Introduction to Educators

Project Archaeology is designed to teach students about America's rich cultural past and what actions they can take to preserve and protect it. Designed for teachers to reproduce for their own classrooms, the materials can be used to supplement an existing curriculum or as a stand-alone curricular unit.

Archaeology lessons are found in *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades.* This set of twenty-eight lessons is divided into three sections: "Fundamental Concepts," "The Process of Archaeology," and "Issues in Archaeology." The lessons are cross-referenced and keyed into Bloom's Taxonomy.

*Intrigue of the Past: Discovering Archaeology in New Mexico i*s the second component of *Project Archaeology*. This volume is designed to provide student materials that are difficult to find in generic textbooks. Like those in the teacher's guide, lessons are cross-referenced and keyed in Bloom's Taxonomy. It is intended to be a companion book to the teacher's guide.

Neither volume includes lessons on mock digs. While these can be valuable learning experiences, teachers are encouraged to use them with extreme care. Mock digs may inadvertently teach that digging is OK anytime, anywhere. However, when used carefully in conjunction with *Intrigue of the Past* lessons, mock digs, laboratory lessons, and reports teach children experientially a great deal about the scientific process.

Remember that conducting a dig at a real site on public lands is illegal unless it is done with a federal or state permit. If you are tempted to begin a dig yourself on private land, we urge you to contact a local archaeologist or archaeological society. Every site contains valuable information that will be lost forever if it is not properly retrieved and reported. Also prehistoric sites are sacred to many Native Americans and care must be taken not to violate sacred places.

You may have received these materials by attending a *Project Archaeology* workshop. If this is not the case, you have only one piece of the complete program. Workshops allow you to experience the activities firsthand, to ask questions and exchange ideas with teachers and archaeologists. Workshops provide current information about archaeology in your area. State, county, and municipal preservation laws and ordinances may affect projects you are planning with your students. Workshops can inform you of this possibility and suggest means to facilitate your project. To find out about workshops in your area, contact the Heritage Education Team, Bureau of Land Management, Anasazi Heritage Center, P.O. Box 758, Dolores, Colorado 81323, (303) 882-4811. e-mail: crmasay@co.blm.gov

How to Use This Book

Discovering Archaeology in New Mexico is designed to be reproduced for classroom use by students. We suggest that you reproduce the desired quantities of the chapters and lessons that you wish to use. **If you use these materials for some other use, please contact us.** Always list our publication, title, and author of the piece you use and give our address.

Grade level: Discovering Archaeology in New Mexico is written at a challenging fifth grade reading level. It is appropriate for 4th grade students and above.

Boldface words from the text are contained in the word list at the end of each chapter and in the Student Glossary. Words are printed in boldface and defined the first time they are used.

ALL CAPS in the text indicates the word or idea is treated in a side bar on or near that page.

Lesson Plans: Lesson plans are contained in Appendix 1. Each is organized similarly to the lessons contained in *Intrigue of the Past: a Teacher's Activity Guide for Fourth Through Seventh Grades.* At the beginning of each lesson plan are suggested links to other chapters in *Discovering Archaeology in New Mexico* and to lessons in the Teacher's Guide.

References: Appendix 2 lists the references used in producing *Discovering Archaeology in New Mexico.*

Resources for Teachers: Appendix 3 is a compendium of museums, archaeological sites, government agencies, and other resources that teachers may find useful in conducting archaeology lessons.

Evaluation: We are interested in hearing from you. Please complete the evaluation and return it to us. Your opinion counts! We will refer to evaluations when we revise the book.

Illustration Credits

The credit information below provides the reader with the source of the illustrations (often the copyright holder) by page number of the text on which the image appears. It may include information regarding the collection where the photographs or illustrations are located. The photographer mentioned in the photo credit in the caption accompanying the illustration is the source of the print reproduced. "After" means that the *Discovering Archaeology in New Mexico* illustrators and design staff have redrawn, rearranged, or abstracted the illustration in the cited source for educational clarity. All maps and drawings not otherwise credited are by the *Discovering Archaeology in New Mexico* design staff. Page position codes used below are: T–top of page, C–page center, and B–bottom of page.

New Mexico Sources

- Aztec Ruins National Monument, National Park Service, Aztec. p. 4-10B.
- Chaco Culture National Historical Park, National Park Service, Nageezi. pp. 4-2, 4-3T, 4-4 (after), 4-7.
- Steve Fosberg, BLM State Archaeologist, and the New Mexico State Office, Bureau of Land Management, Santa Fe. Front cover photo, back cover map, frontpiece pii, pp. 4-12, 4-13, 5-2, 5-3T, 5-4B, 5-5T, 5-7, 6-4T, 6-4B, 6-8, 6-9, 7-3B, 8-1, 8-2, 8-3, 8-7T, 8-7B.
- Museum of New Mexico Photo Archives, Santa Fe. pp. 4-3 (neg. #67137), 5-5 (neg. #42055), 5-8 (neg. #144511), 6-1 (neg. #22382), 6-6 (neg. #22389), 6-7 (neg. #22379, neg. #41570, neg. #22376, neg. #22395, neg. #79981, neg. #22366), 6-10 (neg. # 150947), 6-11 (neg. #21777), 7-1 (neg. #20206), 7-3 (neg. #48918), 7-6 (neg. #144697), 7-7T (neg. #16387), 7-7B (neg. #11409), 8-4 (neg. #7151), 8-5 (neg. #1816), 8-6 (neg. 2109).
- Salmon Ruins Museum, San Juan County Museum Association, Bloomfield. pp. 4-9, 4-10T.

Other Sources

- Anasazi Heritage Center, Dolores, CO. p. 5-1T.
- Manton L. Botsford, *Dankworth Village Activity Guide*, BLM Arizona, 1993. pp. 1-2, 2-2, 2-5T, 2-6, 3-6T, 3-6B, 7-1T, 7-2T, 7-5.
- Cindie Brunner, *Illustrator*, Glenwood Springs, CO. pp. 1-6C, 1-6B, 2-1, 3-6C, 5-9.
- Alonzo Cahone, *Illustrator*, Cortez, CO. pp. 2-4, 2-5B.
- Casa Grande Ruins National Monument, National Park Service, Coolidge, AZ. p. 6-12.
- Denver Public Library, Western History Section, Denver, CO. pp. 1-7T, 1-7B, 5-1B, 7-8.
- Eva Krakowska, *Illustrator,* Cortez, CO. pp. 1-5, 2-2B, 3-3, 2-7, 4-1, 4-4, 4-5, 4-8, 4-11, 5-3B, 5-6, 6-2, 7-4.
- Stephen H. Lekson, Boulder, CO. pp. 4-5 (after), 4-8 (after), 4-11 (after).
- National Park Service, Washington, DC. pp. 1-1, 1-4, 1-6T, 1-8, 3-8, 3-9.
- Smithsonian Institution Press, Washington, DC. p. 2-2B (after).
- Jim Thomas/Creative Resources Inc., Flagstaff, AZ. p. 1-2.

Intrigue of the Past

Discovering Archaeology in NEW MEXICO

1 The Paleo–Indian Period

10,000–5500 B.C.

New Mexico is a very important place for archaeologists who study Paleo-Indians. Two of the most famous "finds" happened right here in New Mexico! These were the Folsom site and the Clovis site.

Archaeologists call the first people who lived in New Mexico the Paleo-Indians (*paleo* = old in Greek). Paleo-Indian people crossed the Bering Strait and Land Mass from Asia. They arrived in the Americas between 12,000 and 13,000 years ago. They rapidly expanded throughout North and South America. The Paleo-Indian period in New Mexico dates from about 10,000 B.C. to 5500 B.C. Paleo-Indian people lived in small, mobile groups, probably only one or two families, and hunted large-game animals.

There are three divisions of the Paleo-Indian period in New Mexico. Changes in projectile point types and in the types of animals found with these projectile points define the divisions. The divisions are: Clovis (9500–9000 B.C.), Folsom (9000–8000 B.C.), and Plano (8000–5500 B.C.). Archaeologists have few objects, or **ARTIFACTS,** from those times. Projectile points are the most common remains that archaeologists find.

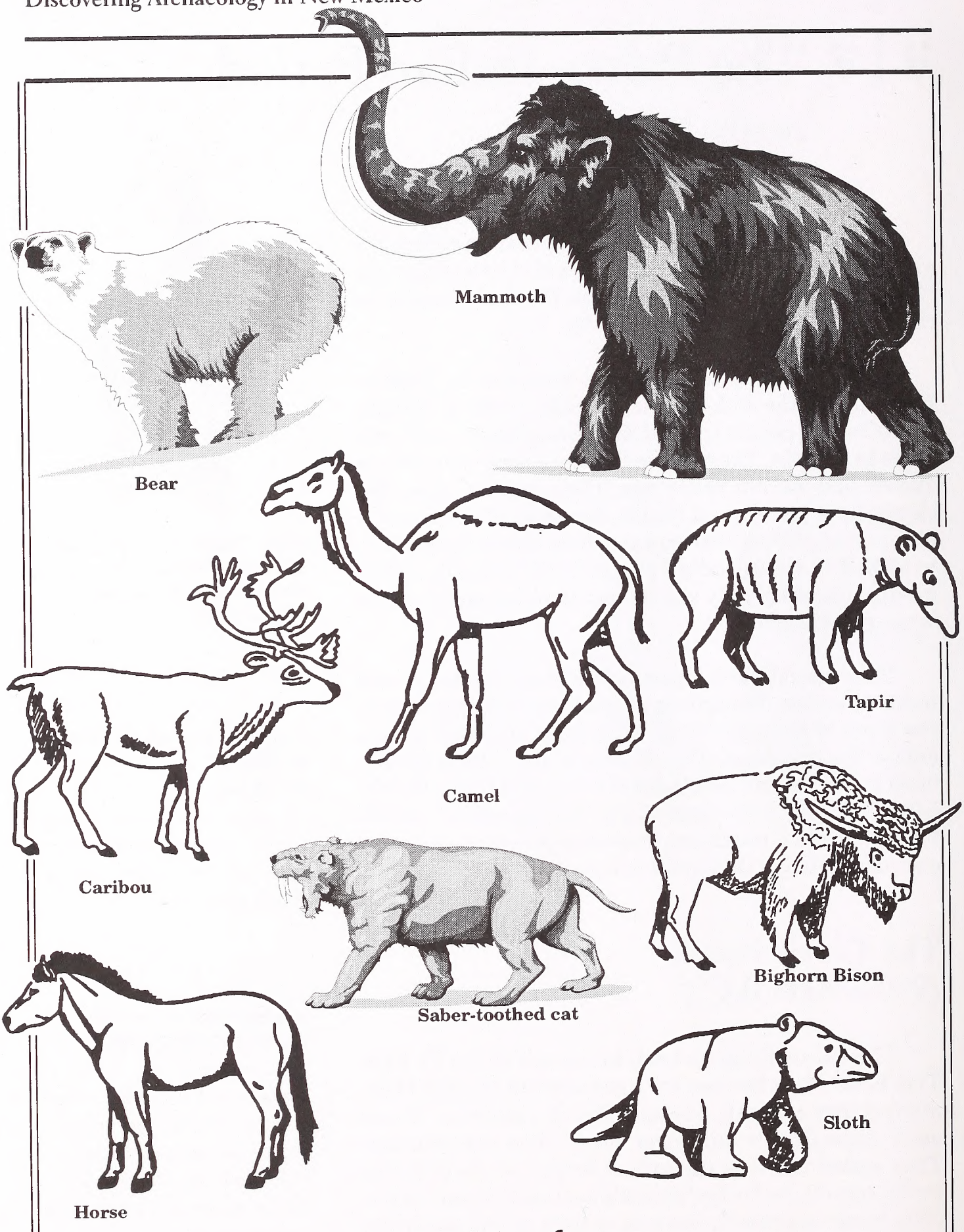
Clovis Point. Clovis projectile points are long, thin, stone blades with a flute or channel removed from the base.

Something Made By People: ARTIFACT
(AR-tih-fakt)
Any object made or used by people or showing human workmanship can be called an artifact. (arte=by skill; factus=to do).

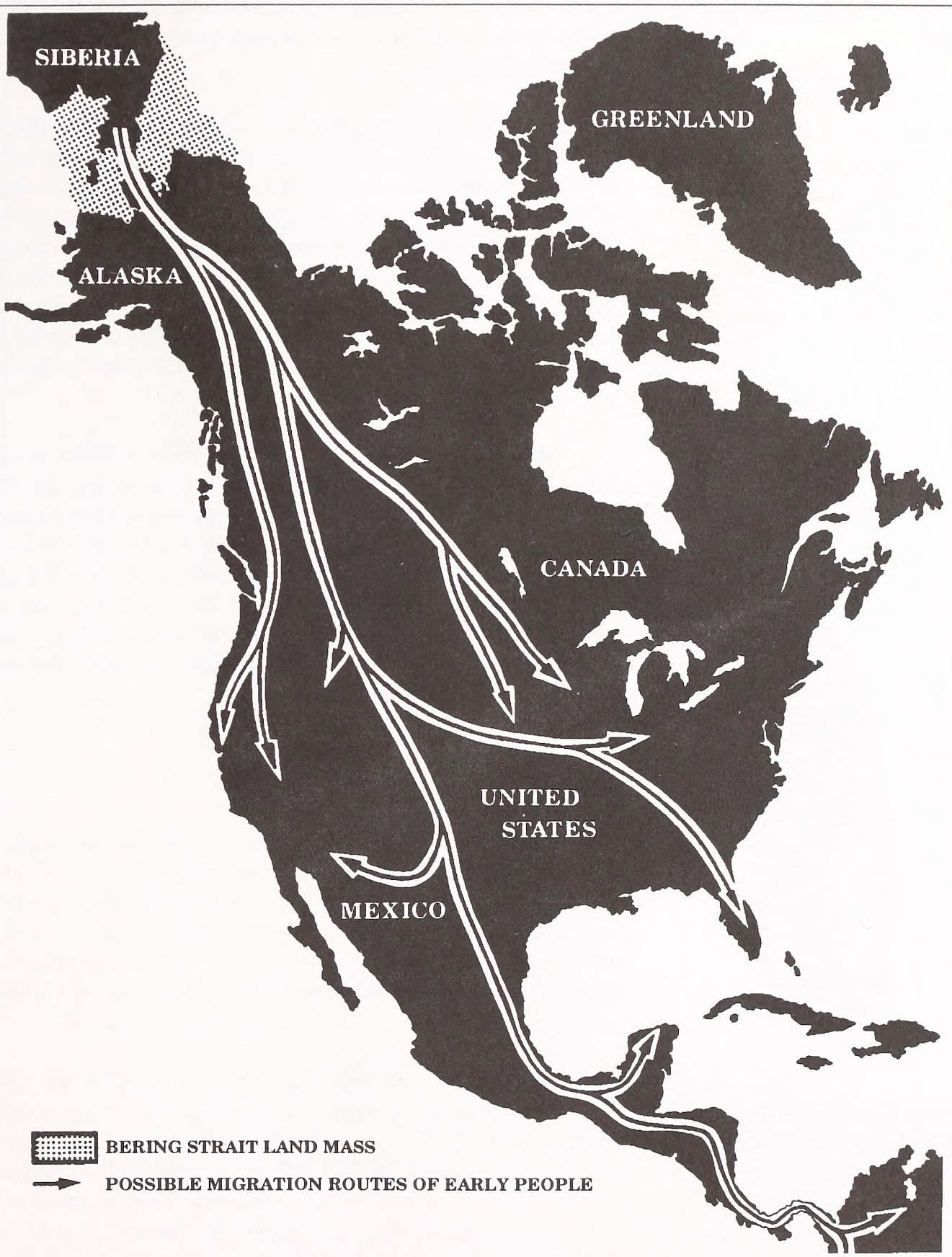
The Clovis People (9500–9000 B.C.)

The Clovis times go back to the end of the **PLEISTOCENE** when the last Ice Age occurred. At that time, many large animals roamed North America. These early animals are no longer alive, they are **extinct**. They included the mammoth, a large variety of bison, horse, camels, and other animals such as the giant tapir. (The horse eventually became extinct in the Americas until it the Spanish reintroduced it.) Scientists call them "Pleistocene **megafauna**." Clovis people hunted

It was a colder world: The PLEISTOCENE
(PLYS-toh-seen)
The Ice Age(s) and period in the world's history from about one million years ago until about 10,000 years ago. During the Pleistocene, much of the earth was covered with ice.



Ice-Age Megafauna



The Bering Land Mass

A Place From The Past:
SITE
A location or place. "Sites" are places where people did things and left things behind. There are many archaeological sites in New Mexico where prehistoric people once lived. Some famous places include Aztec Ruins, Chaco Canyon, Gila Pueblo, Petroglyph National Monument, and many others.

these mammals, especially mammoth. Archaeologists frequently find Clovis style projectile points with piles of mammoth bones.

CLOVIS PROJECTILE POINTS were first found at a place, or **SITE,** called Blackwater Draw. Blackwater Draw is located near Clovis, a small town in eastern New Mexico. The area is now a broad, shallow valley with many sand dunes. When Clovis people lived there, it was a grassland. The grassland probably included pine and spruce forests and small ponds (or playas). It was much colder and wetter there during Clovis times than it is now. The Blackwater Draw site was at the edge of one of these small ponds.

At Blackwater Draw site, archaeologists found Clovis projectile points with the bones of mammoth, camel, horse, and bison. The Clovis people killed many animals at the small pond at Blackwater Draw. Perhaps they had a campsite nearby. Archaeologists found stone scrapers, flakes, and other tools and possibly the remains of a small pit. Unfortunately, this evidence was very disturbed. It wasn't clear where the campsite was located or even if there was one.

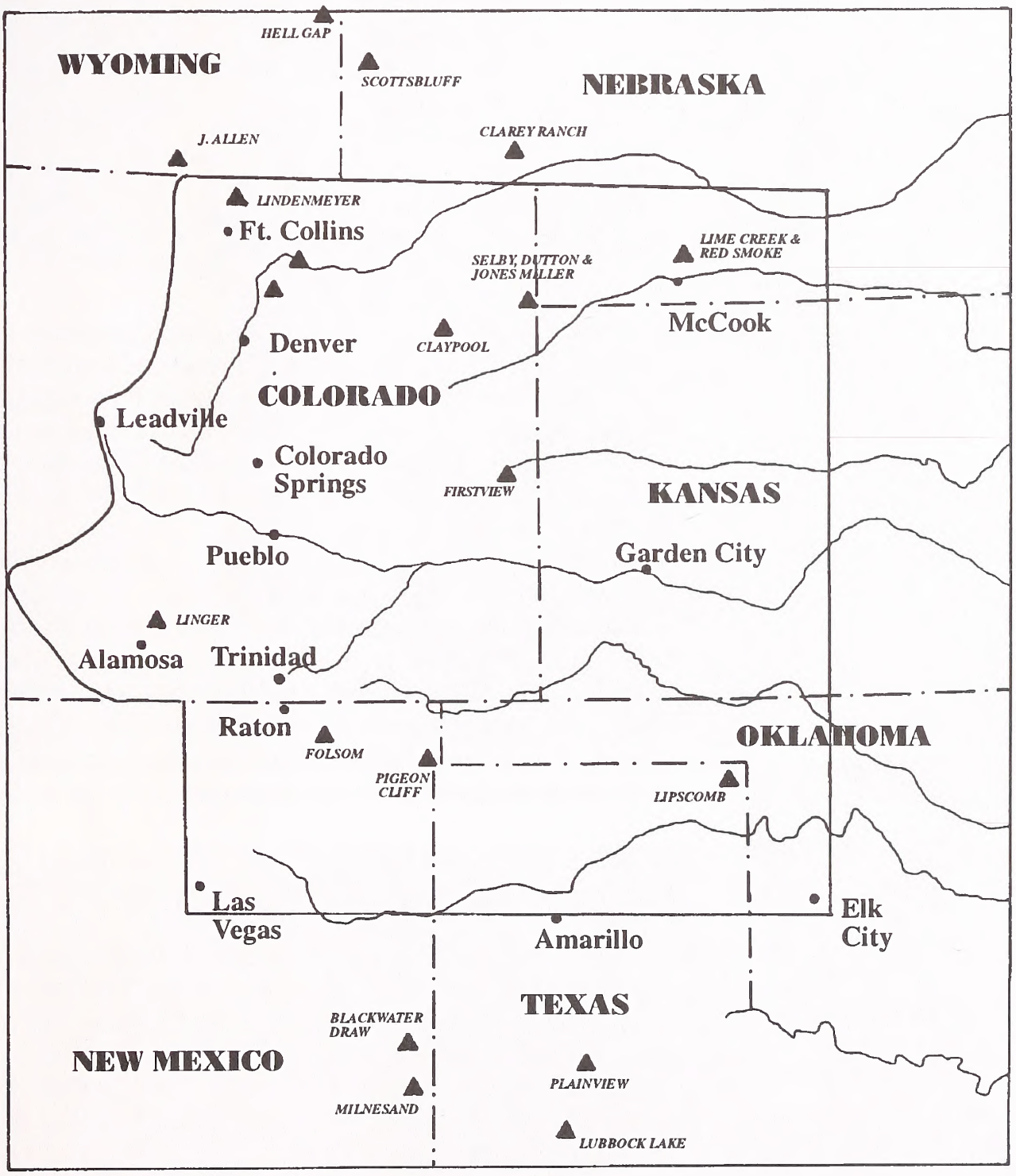
Making Projectile Points:
FLINT KNAPPING
(flint NAP-ping)
A method used to make spear points, projectile points, scrapers, and knives from stone. A piece of stone is shaped by striking it with another stone or antler, removing small pieces from it.

Risky Business

The Clovis people used the points as the tips of spears that were thrust into prey animals. Clovis hunting techniques were probably very risky. Archaeologists study modern **hunter-gatherer** groups in Africa to find out how they hunt elephants. The archaeologists compare what they studied to what they find at Clovis sites.

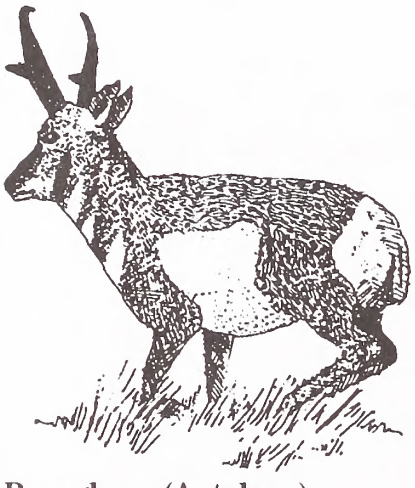
It is likely that several Clovis hunters may have surrounded a mammoth. They attacked it repeatedly from the rear. The mammoth would turn to face each new hunter until it finally fell, wounded and exhausted. Perhaps the hunters drove or followed a mammoth into a watering hole, like the pond at Blackwater Draw. Then a single hunter would sneak beneath it and spear it.

Clovis people almost certainly gathered wild plant

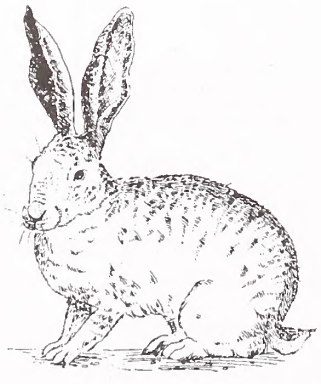


Southwest Paleo-Indian Sites

Folsom Point. The Folsom people made some of the most elaborate projectile points known.The big groove in the center is called a flute.



Pronghorn (Antelope)



Jackrabbit

foods to supplement their diet. However, most Clovis sites are large animal kill sites, rather than campsites. There is little evidence for plant-gathering or other parts of their **life-style**. There are theories that overhunting by Clovis people led to the extinction of Pleistocene megafauna.

The Folsom People (9000–8000 B.C.)

About 9000 B.C., the Folsom people appeared in New Mexico. By that time, the mammoth and most other Pleistocene megafauna had become extinct. Folsom people hunted a large bison, *bison antiquus*, that later also became extinct, as well as more familiar animals, such as PRONGHORN (ANTELOPE) and JACKRABBIT.

Folsom people made elaborate projectile points. They were large blades, like Clovis points. They also had a flute or channel removed from the base. The FOLSOM flute, however, ran almost to the tip of the projectile point. Removing the flake that created the flute was difficult thing to do. Archaeologists are not certain what purpose it served. It may have helped attach the stone point to the wooden spear shaft. Perhaps they liked it better.

George McJunkin's Find

Archaeologists named Folsom projectile points for the small town of Folsom in northeastern New Mexico. The Folsom Site is on a nearby ranch. There archaeologists first proved that humans have been in the New World a very long time. Before the late 1920s, most scientists assumed that humans had been in the New World for only about 3,000 years. Some scientists disagreed with that assumption.

In 1908, a supervisor of a ranch near Folsom noticed some bones sticking out of an arroyo. George McJunkin was a self-educated African-American, interested in natural history. He made a collection of the bones. He apparently mentioned his find to local museums, but at first no one seemed interested. Years later,

Carl Schwachheim points to the first artifact "in its original position" at Folsom Quarry, New Mexico. Dr. Barnum Brown regards it from the opposite side.

The original Folsom Point. Here photographed "in its original position" as examined before removal by archaeologists Brown and Roberts.

word of the find reached the Colorado Museum of Natural History. They soon began to dig or **EXCAVATE** the site. In the summer of 1927, they found a projectile point sticking into the ribs of an extinct bison. The Museum sent telegrams across the country with the news. They had found ancient humans at Folsom, New Mexico! Obviously, people had been in the New World far longer than 3,000 years.

It's More Than Digging:
EXCAVATE
(ECKS-kuh-vayt)
Carefully removing layers of dirt or sediment to find objects made by people from long ago. Archaeologists don't dig unless they have to. When they do dig, they carefully plan what they want to do. They measure out the area they suspect people once used. Then they carefully scoop off, layer by layer, the dirt or other material that has buried the things people left behind. When they find an object or piece of an object, they carefully map the location where it was found. They study all of the other objects found in the same area in order to find out how everything was used. That is why excavating is more than digging.

The Plano People (8000 B.C. to 5500 B.C.)

Several projectile point types represent the PLANO people. The Plano people still used the projectile points as spear tips. The prey was a modern form of bison. Bison are herd animals and hunting methods apparently had changed. The people often drove the herds over cliffs or into arroyos where the frightened animals floundered. The animals crushed each other. That gave hunters ample opportunity to kill them with spear thrusts.

The Plano hunters still lived in small, mobile groups. They probably moved seasonally. Perhaps they followed bison herds across the landscape. Bison drives may have involved the cooperation of several different bands of people. They dried large quantities of meat for future use. If the hunt was during late fall or winter, they froze the meat. They did not rely entirely on bison. The Plano people added to their diet with small game animals and plant foods.

The number of available bison may have limited the growth of the human population during that time. When the climate was very dry, the grasslands shrank. The bison herds also shrank. Most likely, human populations also shrank at these times

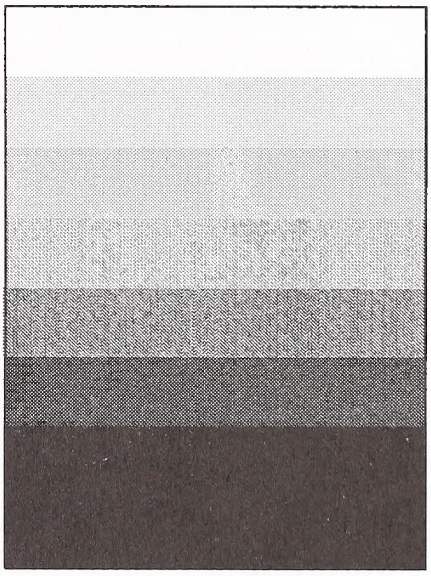
Plano Style Point. A typical Plano style point.

Another Surprise?

Most archaeologists agree that humans entered the New World across the Bering Land Mass around 12,000–13,000 years ago. There are some who would like to push

that date much further back. Archaeologist Richard "Scotty" MacNeish recently dug on the Fort Bliss Army base in southeastern New Mexico. In a cave near Orogrande, MacNeish found a clay fire pit with a possible human palm print. The fire pit dates 28,000 years ago. He found stone tools that may be 10,000 years earlier than that. MacNeish's evidence is very new, but already other archaeologists are beginning to dispute it. Some question his layer, or **STRATIGRAPHIC** associations. They believe his dates are not clearly associated with the cultural material he found. Others question whether the materials he found were used by hunters. This is a controversy that will undoubtedly continue for some time. The Folsom Site surprised archaeologists in 1927—it is possible they could be surprised again.

Layers And Layers:
STRATIGRAPHY
(struh-TIG-ruh-fee)
Stratigraphy is the science of studying layers of materials, as in rock layers in the earth or deposits in archaeological sites. Remains of human activity and dirt become buried over time. The layer on the bottom is the oldest, the layer on the top is the youngest. The dirt of different layers is often colored differently.



When archaeologists study the layers of soil, rock, and artifacts left behind by prehistoric people, they are using stratigraphy.

Word List

artifact (AR-tih-fakt) Any object made or used by people or showing human workmanship can be called an artifact (*arte* = by skill; *factus* = to do).

excavate (ECKS-kuh-vayt) To carefully remove layers of dirt and record the objects found to learn about the past.

excavation (ecks-kuh-VAY-shun) The act of carefully removing layers of dirt to find objects made by people from long ago.

extinct (eks-TINKT) No longer existing or active, gone out.

extinction (eks-TINK-shun) bring to an end, wiping out, or destruction.

flint knapping (flint NAP-ping) A method used to make spear points, projectile points, scrapers, and knives from stone. A stone or antler is struck against another stone, making smaller pieces of stone fall from it. The flint knapper continues to knock off chips or flakes of stone until the object is complete.

hunting-gathering (HUN-ting GATH-er-ing) A method of survival where people depend on wild animals and plants for food.

life-style (LIFE-STILE) the way that a person or group lives.

megafauna (MEG-a-faw-na) Large animals of the Pleistocene.

Pleistocene (PLYS-toh-seen) The Ice Age(s) and period in the world's history from about one million years ago until about 10,000 years ago. During the Pleistocene, much of the earth was covered with ice.

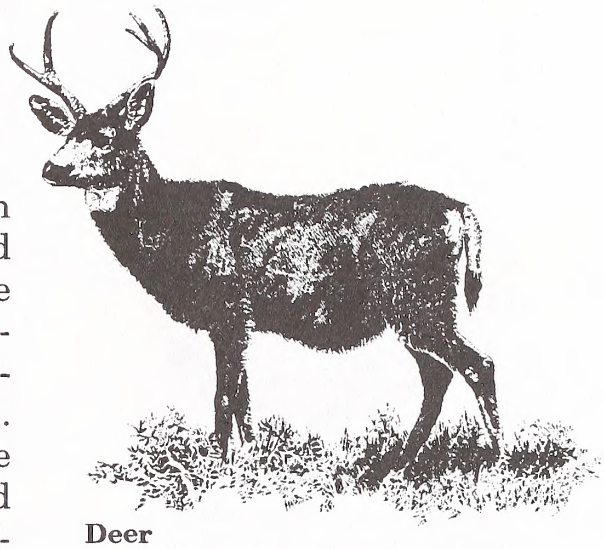
site (sight) A location, place. "Site" is a word used by archaeologists for locations where prehistoric and historic people used to live in or do things at. Sites are places where human activity happened and their things were left behind.

stratigraphy (strah-TIG-ruh-fee) The science of studying layers of materials, as in rock layers in the Earth or deposits in archaeological sites. Remains of human activity and dirt become buried over time. The layer on the bottom is the oldest, the layer on the top is the youngest. The dirt, of different layers, is often colored differently. (*strata = layers; graph = written*)

stratigraphic (STRAT-uh-graf-ick) having layers.

▲▲2▼▼ The Archaic Period

(5500 B.C.–A.D. 1)



Deer

The **ARCHAIC** period was a major turning point in New Mexico Prehistory. During the Late Archaic period people in the Southwest first used plants that had once been wild called **DOMESTICATED** plants. The Archaic period follows the Paleo-Indian Period. The Archaic Period dates from about 5500 B.C. to about A.D. 1. Archaeologists are not certain about the date when the period ends. The Archaic people were still hunters and gatherers, as the Paleo-Indian people had been. Pleistocene megafauna had become extinct long before then. During the Archaic, people hunted smaller game such as rabbits and deer. More and more they relied on collecting wild plant foods. Finally they began using domesticated plants.

No Longer Wild:
DOMESTICATION
(doh-mess-tih-KAY-shun)
The process of taming or making usable for human purposes. The deer was never **domesticated** by people Dogs were domesticated.

Environmental Changes

The beginning of the Archaic seems to have been at the same time that there were changes in the environment. There was less rainfall. Parts of the Southwest became drier and more like a desert. During the Early Archaic (5500–3000 B.C.), conditions may have been extremely hot and dry. The Late Archaic (3000 B.C.–A.D. 1) may have been slightly wetter. The environment during the Archaic certainly contrasted with the cooler, wetter climate of the Paleo-Indian period. It was no longer an environment in which large herd animals flourished. Archaic peoples changed the way they maintained their lives called their **subsistence,** to a variety of small plants and animals.

It's Old, It's ...
ARCHAIC!
(ar-KAY-ick)
ancient, old, or surviving from an earlier people. Archaic can also mean relating to an earlier time. Those who lived in the Southwest after the Paleo-Indians are called the Archaic people. They were in the Southwest from about 6000 B.C. until about 2,000 years ago. The Archaic people got most of their food from hunting animals and gathering wild plants. They learned about corn from people in Mexico.

Subsistence

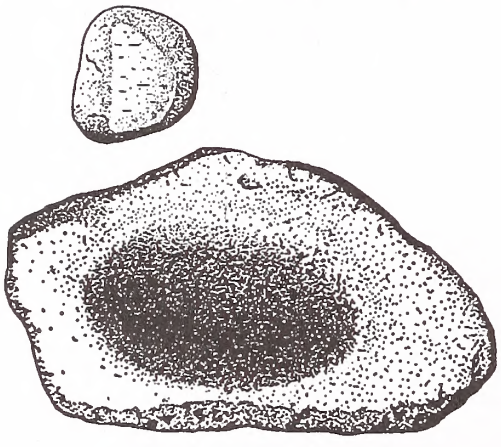
Archaic peoples most likely organized themselves into small bands. These bands consisted of a few families. They moved on a seasonal basis within a large

region. They were as familiar with the territory they lived in as you are with your neighborhood grocery store. They knew when different types of food became available in different areas. For example, they may have collected a variety of greens in the spring. In the summer they gathered grass seeds and hunted rabbits. They gathered pinyon nuts and hunted deer in the fall. Each activity might occur in a different place.

Mortar and Pestle. The bowl-shaped mortar and pestle were used for grinding food. They were also used to grind minerals for paint.

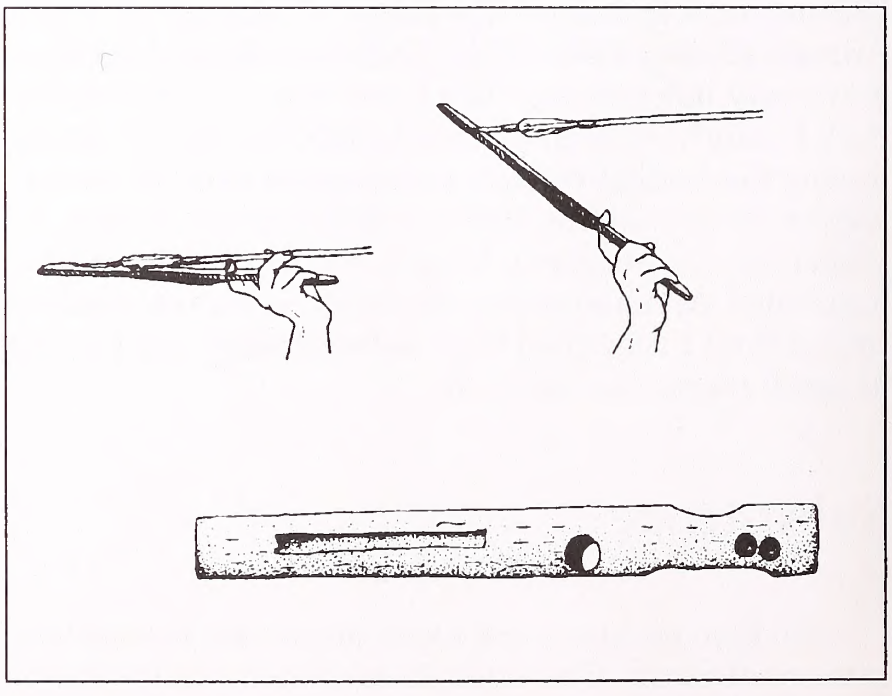
Archaic Tools

Archaic tools were different from those of the Paleo-Indians because their subsistence was so different. Archaic points were typically smaller and less specialized than Paleo-Indian points. That was because Archaic people hunted a wide variety of small animals. They still used points as spear tips. They extended the range of a thrown spear with a spear thrower called an ATLATL. They caught small animals with nets, snares, and traps. Almost all mammals, reptiles, and insects were fair game for Archaic hunter-gatherers.

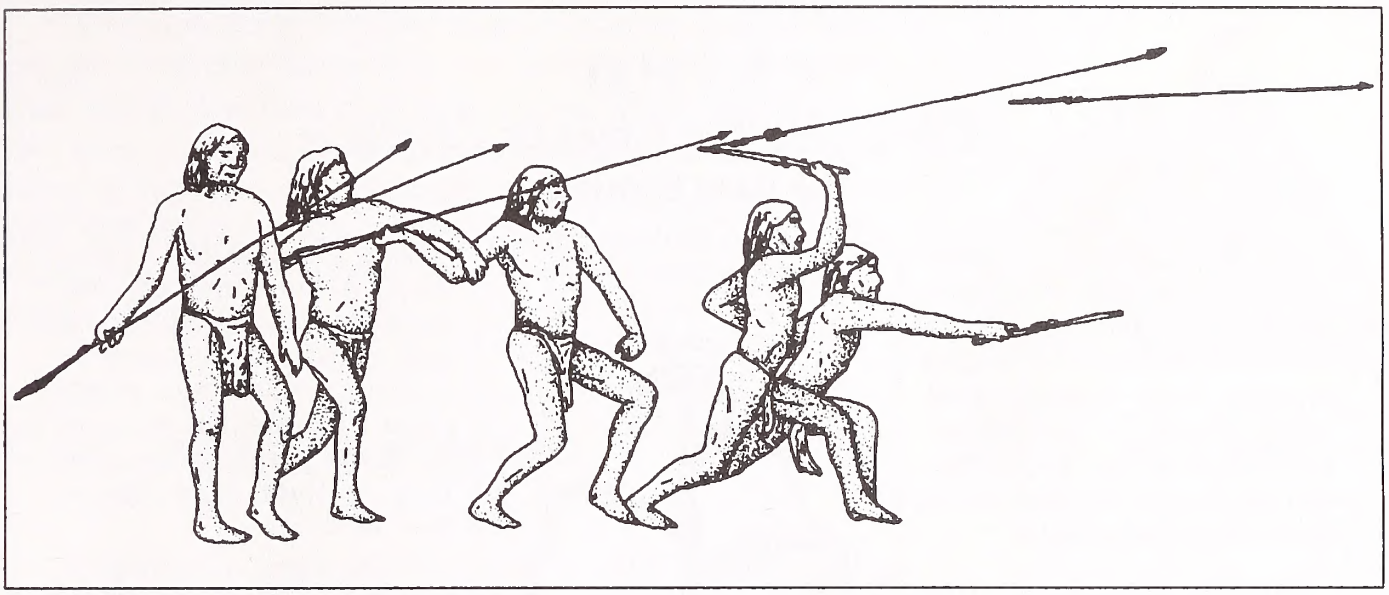


Mano and Metate. The mano is held in the hand and used to grind seeds and nuts on the larger metate.

Archaic people began using ground stone tools to prepare plant foods. The tools were small **MANOS, METATES,** and **MORTARS** and **PESTLES**. Scientists



The Atlatl or throwing-stick is used to launch a spear.



Throwing with an atlatl. Throwing a spear with an atlatl is a lot like throwing a baseball. Follow through is important. Why do you think Archaic people started using atlatls?

find many ground stone tools in Archaic sites. This indicates that Archaic people used plant foods such as grass seeds. The grass seeds needed considerable grinding and processing before people could eat them. For the Archaic people, their grinding tools were like today's modern food processors.

Archaic Sites

Much of our information about the Archaic comes from caves and rock shelters. The preservation of artifacts is very good in caves and rock shelters. However, these types of sites are rare. Recently, studies of non-cave sites have given us more information about Archaic ways of living, or **life ways**.

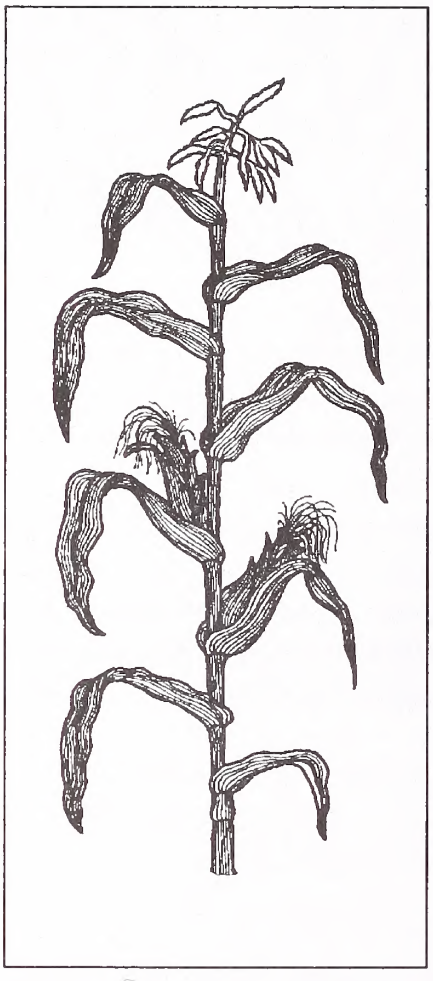
Archaic people usually located their village sites in areas where they could find many different food resources. An example is in the San Juan Basin of northwestern New Mexico. There scientists usually find Archaic sites in three types of places. One place is at the heads of canyons. The second is on the canyon bottom. The third is near springs, which are generally at the heads of canyons. The people used the plants and animals on the canyon rim and floor. Archaeologists frequently find Archaic sites in sand dunes with a large variety of plants covering them.

Corn

Changing the Lives of People

by Kris Kunkel

Did you know that tomatoes, potatoes, and corn used around the world today came from the Americas? Native peoples first domesticated these plants. In fact, almost two-thirds of the food eaten all over the world today comes from American plants.



Neither crops nor farming began overnight. Hunter-gatherers first began encouraging wild plants. People from the central highlands of Mexico introduced **corn** (maize) to the Southwest. The original ancestor of corn is a wild grass called **teosinte**—"God's corn." Wild teosinte cobs were very small, about thumbnail size. Another wild grass is *chapolite.* Chapolite is a small-cob popcorn plant. The corn found in the Southwestern United States came from these two wild grasses. This new corn is called *Maize de Ocho* or *Harinoso de Ocho.*

Corn became the food of life throughout America. Native people domesticated hundreds of kinds of maize (corn). Over centuries, maize became part of the hunter-gatherer life-style. The cobs became larger and more uses were found for every part of the corn plant. Native Americans in the Southwest began to use and grow that type of corn around 300 B.C. They had been growing corn for 600 years before they began to use the *maize de ocho.*

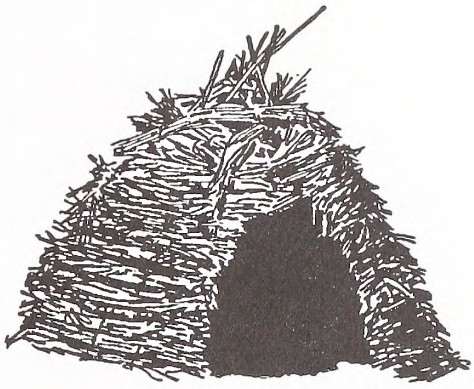
Growing corn changed life for native peoples. As they became dependent on corn, they built pit houses and later, pueblos. They learned to store food in case the next year's crop failed. They made better containers for cooking–the ceramic bowls and pottery seen today in museums. Can you guess other ways that life changed for these people when corn became their most important food?

Corn was planted in widely spaced, small hills of dirt. This allowed the people to protect the corn plants from birds and other creatures. It also kept the corn from taking all the nutrients from the soil. The following year, the people would plant the corn between the hills of the previous year. When a farmer uses a field all the time, it uses up the nutrients in the soil. The plants do not grow as well. Changing the hills let the soil stay rich and fertile.

The people prepared corn by grinding. They put the corn on a large stone slab that had a trough pecked into it. The stone slab is called a *metate.* They took a round hand stone, called a *mano*, and crushed the corn between these two hard surfaces. This is how they made flour to use in their cooking.

Corn became the most important crop of people in the Southwest. It appears in prehistoric rock art and modern Native American art. Modern Pueblo people use corn pollen to bless things. They hold special corn dances yearly. Corn is still an important part of their lives.

Perhaps Late Archaic people stayed in one spot longer than did Early Archaic people. Archaeologists find the first evidence of structures appearing during the Late Archaic. These were circular structures that were probably made of mud, brush, and grass called BRUSH SHELTERS with slightly dug out floors. We think the Archaic people lived in these structures only temporarily or seasonally.



Brush shelter. This shelter was a fairly small place in which to camp.

Corn, Squash, and Beans

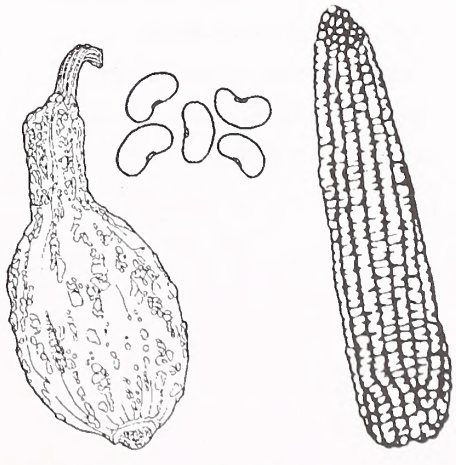
During the Late Archaic period (3000 B.C.–A.D. 1), people began to grow CORN in the Southwest. Corn was brought from Mexico where people had domesticated it from a wild grass called "**TEOSINTE.**" They probably began to grow domesticated SQUASH about the same time. BEANS came in somewhat later. The people's use of domesticated crops is probably the most critical turning point in Southwestern prehistory. It changed all later cultural development. Understanding how, why, and when Southwestern peoples adopted domestic crops is an important archaeological research question. Do you have some ideas about how it changed later cultural development?

Teosinte grass. This plant was domesticated by people in Mexico and became corn or maize.

Checking Old Theories With New Techniques

W. H. (Chip) Wills III is an archaeologist at the University of New Mexico. Wills recently checked theories about when and how corn came into the Southwest. Wills used information from Bat Cave, a site in the highlands of west-central New Mexico.

Archaeologists first excavated Bat Cave in the late 1940s. Scientists were just developing the technique of dating archaeological material using the RADIOCARBON (C-14) method. Researchers found a large quantity of corn in one of the layers in Bat Cave. Charcoal from the same level gave a C-14 date of 2500 B.C. Archaeologists assumed that domesticated corn had arrived in the Southwest about that time. They



Corn, beans and squash

assumed the Archaic people adopted domesticated plants very slowly throughout the rest of the Southwest.

In the early 1980s, Chip Wills went back to re-excavate Bat Cave. People had occupied Bat Cave off and on over thousands of years. Wills had the corn itself C-14 dated and found that it dated 1200–1000 B.C. That date was more than 1300 years later than the first charcoal date. Which date would you trust most? The corn date or the charcoal date? Why?

Bat Cave was first excavated more than 40 years ago. Since that time, researchers have found corn at other Archaic sites. The earliest dates are always after 1000 B.C. So was the very early date from Bat Cave an unusual occurrence? Or, was it the result of a scientific mistake?

Archaeologists now believe that The Archaic people domesticated plants were introduced into the Southwest about 1000 B.C. Their use spread *rapidly* throughout the area. The re-excavation of Bat Cave really changed the way we think about the adoption of domesticated plants in the Southwest.

How Old is Old?
RADIOCARBON or CARBON-14 DATING
(RAY-dee-oh-KAR-buhn DATE-ing)
All living things take in carbon. Some carbon contains small amounts of energy, or radiation. These small amounts of radiative carbon are called Carbon-14 (C-14). At death, the amount of radioactive carbon begins to decay at a constant rate. Radiocarbon or C-14 dating involves measuring the tiny amount of radiation released from once-living material. These measurements can tell us how old the material is, up to 100,000 years ago. The older the material, the less radiation there is left to release. Bone, wood, cloth, shell, and other materials can all be C-14 dated.

Why Did the Archaic People Begin Using Domesticated Plants?

There is a big question about the introduction of domesticated plants in the Southwest. Why did people accept domesticated plants as a major food source? Hunting and gathering is a much easier life-style. Apparently it is a much healthier one than farming. Farmers work harder to produce crops than hunters and gatherers work to hunt. Domesticated crops are less useful as food, or less **NUTRITIOUS,** than wild sources of food.

One possible answer is that there were too many people for the available wild resources. Growing plants was the only alternative to starvation. Another theory is that wild plants were not reliable. They varied in quantity, quality, and location from year to year. People began growing corn so that they would have a reliable source of food.

A third idea is that agriculture began when people were already living in settlements. Late Archaic people adopted agricultural practices when they began to use one site regularly. Corn depends on people to reproduce because it is a domesticated plant. Someone has to be there to plant it.

By the Late Archaic, people moved around far less than in any earlier periods. They probably stayed in one place for weeks, or even months at a time. They gathered wild plants and hunted small and large game at that place. Furthermore, they returned to the same place during the same season every year.

They could adapt easily to agriculture at that site. They could plant their corn in the spring, then move off to collect wild plant foods or hunt elsewhere. They could return to harvest it in the fall. They may have left part of the group behind to tend the plants. Recent hunter-gatherers often left behind old folks and children, who don't travel well.

By the end of Archaic times the people were living in more permanent settlements. They used corn, beans, and squash as a part of their hunting and gathering diets.

It's what you eat.
NUTRITION
(new-TRISH-uhn)

Food that helps plants or animals grow is called **nutrition.** Good nutrition will help you stay healthy.

Word List

Archaic (ar-KAY-ick) Ancient, old, or surviving from an earlier people. Archaic can also mean relating to an earlier time.

domesticate (doh-MESS-tih-kate) To tame or make usable for human beings.

life way A way of living that is typical of the culture.

mano/metate (mah-no, meh-TAH-tay) In the Southwest, *mano* comes from the Spanish word for "hand" and is a small grinding stone. The mano is used to grind corn and grain on a larger stone, the *metate,* to make flour.

mortar (MOR-tur) A large stone with a bowl shaped basin used to grind seeds.

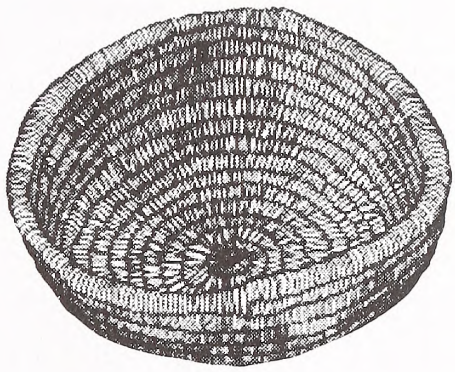
nutrition (new-TRISH-uhn) Food that helps plants or animals grow.

pestle (PES-'l) A long round stone used to pound seeds in a mortar.

subsistence (sub-SIS-tens) the act of maintaining one's life. The Paleo-Indians' subsistence was by hunting and gathering.

teosinte (Tay-oh-SEEN-tay) A tall, wild grass of Mexico and Central America. Scientists consider it to be an early form of maize or corn. (*teotl = god + cintl = dried ear of maize*) Native people in Mexico cultivated teosinte until it improved and became corn

3 The Ancestral Pueblo: Basketmaker II to Pueblo I
(A.D. 1–900)



Basket. Baskets were used for carrying food items.

People from around the world visit New Mexico to see ANCESTRAL PUEBLO or ANASAZI sites. Famous Anasazi sites are in Chaco Canyon and Bandalier National Monuments.

The Archaic period ended about A.D. 1 or earlier. The slow development of farming villages began at that time, and continued for the rest of the prehistoric period. At about that time, the three major cultural groups in the Southwest begin to appear. The Anasazi, or Ancestral Pueblo, lived on the Colorado Plateau. The Hohokam lived in the southern deserts. The Mogollon lived in the mountain areas between the other two.

In New Mexico, only the Anasazi and Mogollon people were present. Archaeologists find Ancestral Pueblo evidence throughout the northern part of the state. They find Mogollon evidence in the southern (especially southwestern) portions. The Hohokam people lived only in the deserts of southern Arizona and northern Mexico. (See map page 3-2.)

ANASAZI OR ANCESTRAL PUEBLO?

Early archaeologists named the cliff dwelling people, *Anasazi,* a Navajo word meaning ancient enemy. The Navajo are not Pueblo people. Modern Pueblo people prefer not to have a Navajo term used for the ancient ones. Modern Pueblos speak many different languages. Many believe the term, *Ancestral Pueblo* is a better term for the ancient ones.

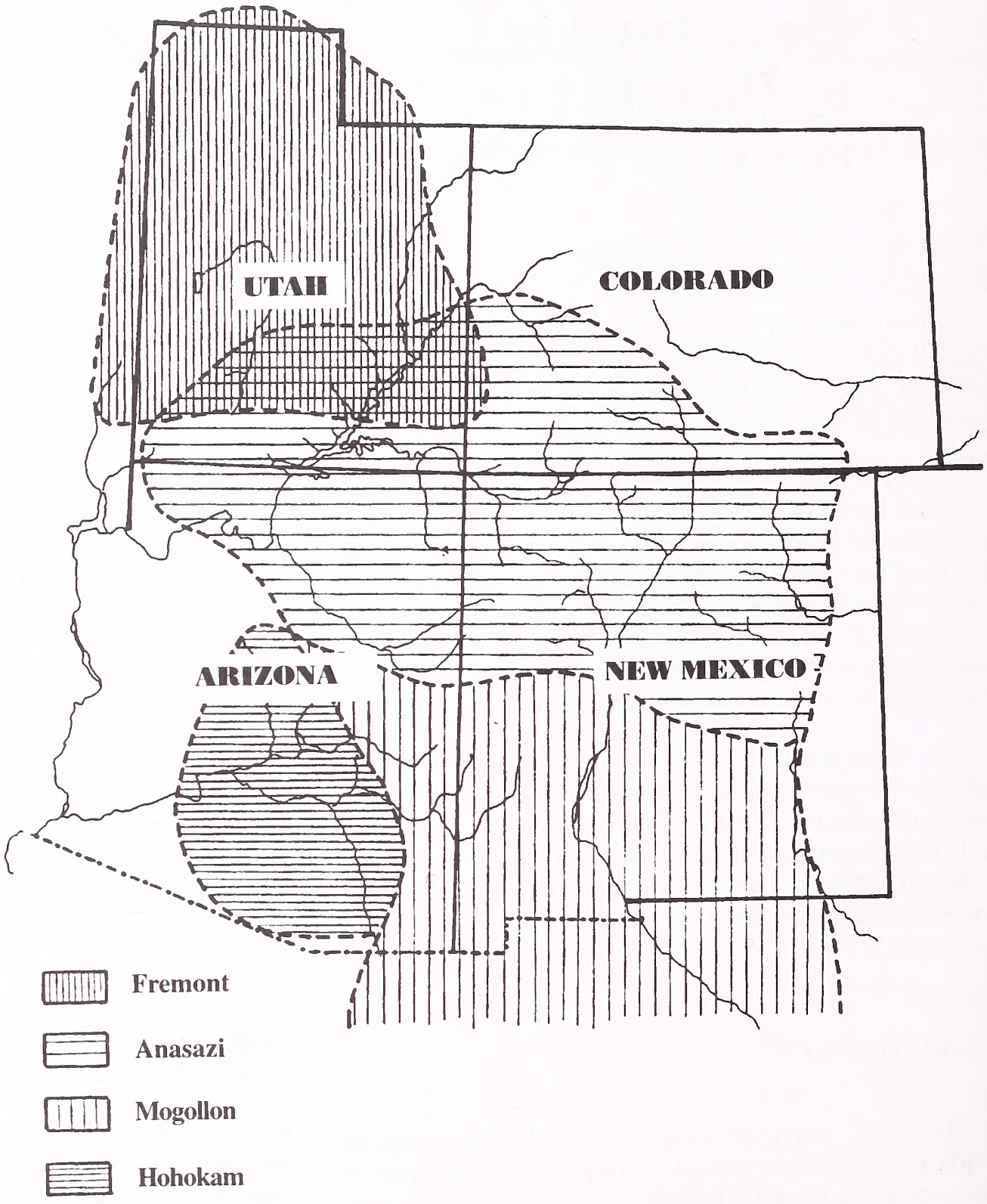
Basketmaker II

To make sense of what they find archaeologists divide evidence into periods. They divide the Anasazi **culture** into several PERIODS. Each has distinct material artifacts, technological changes and life ways.

THE ANASAZI CULTURAL PERIODS

Basketmaker II (A.D. 1– 400)
Basketmaker III (A.D. 400–700)
Pueblo I (A.D. 700–900)
Pueblo II (A.D. 900–1150)
Pueblo III (A.D. 1150–1300)
Pueblo IV (A.D. 1300–1540)

In the 1920s, archaeologists defined the Anasazi periods. Since then, they have fine-tuned the original scheme. In some areas the scheme does not work well as



Southwest Cultures

in others. It began with three Basketmaker periods. A great deal about Basketmaker II material culture comes from cave sites in northeastern Arizona. Artifacts recovered from the caves included baskets but no pottery. That is why the archaeologists called the people, *Basketmakers*. They also found S-SHAPED STICKS, sandals, nets, cord, grinding stones, points and other flaked stone artifacts.

The northeastern Arizona caves contained slab-lined STORAGE PITS but they did not contain houses. Apparently the people who stored their food here lived in open areas somewhere nearby. Sometimes the Basketmakers used the storage pits later as graves.

Basketmaker Pottery

Pottery containers are important for several reasons. They can store either liquid or dry foods. People can seal them to protect the contents from insects or rodents. Potters can make them faster than baskets that require hours of careful weaving. Perhaps most importantly, a cook can set pottery vessels directly on a fire to cook food. Cooking corn in water almost doubles its food value.

Pottery is very important to archaeologists in the Southwest. This is because styles of painted pottery change regularly. The archaeologists can use pottery to date prehistoric sites.

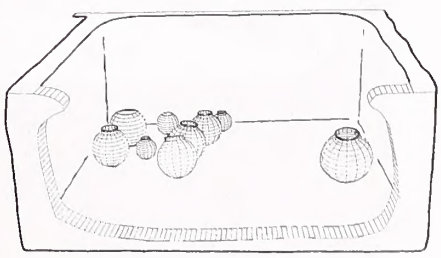
In northwest New Mexico, Navajo Reservoir Basketmaker II sites have some of the earliest known Ancestral Pueblo pottery. The villagers made it perhaps as early as A.D. 200. Making pottery was an important development. It tells us several things about the lives of the Basketmaker II people.

- The people moved around less than they had during the Archaic period. Pottery containers are bulky and heavy to carry. They are not very useful to mobile hunters-gatherers.

- They had more food to store. The Archaic people

***How would you test this* S-shaped stick?**

An interesting artifact type discovered in the caves is the S-shaped stick. Early archaeologists puzzled about the use of this artifact. These sticks are similar to throwing sticks used to kill rabbits. However, their shape and evidence of use-wear on their surfaces did not support this idea. Recently scientists found another stash of these tools. Perhaps they were "fending sticks." Someone held the stick in both hands and used it to ward off a thrown spear. *How would you test this?*



Storage pit. These pits were partly or totally underground. Sometimes they were quite small, only big enough to hold a few containers.

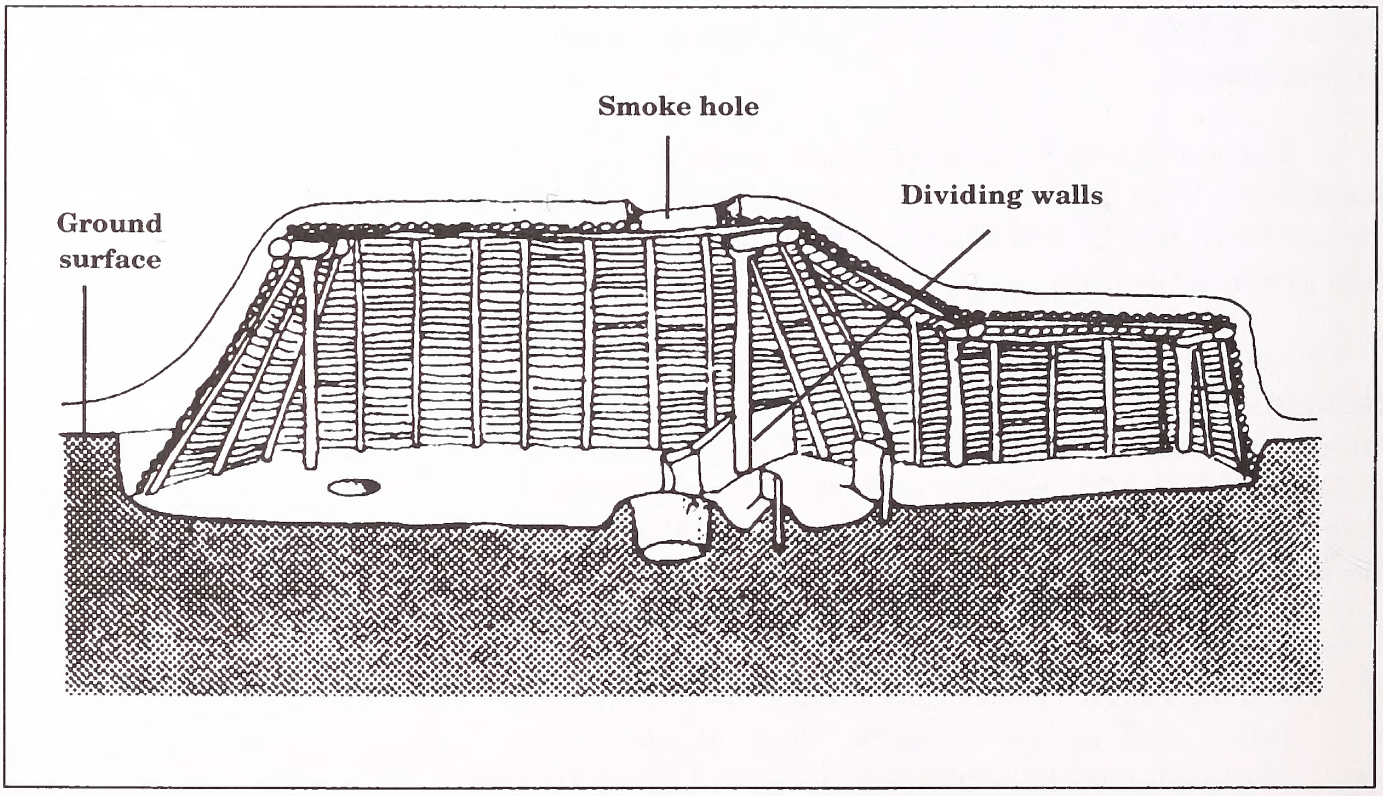
generally ate food as they gathered it. Corn only ripens once a year. The Basketmakers had to store it if they were to rely on it as a major food source.

- They had new ways of preparing food.

The basic container for the Anasazi was the cooking pot. These were the first pottery containers made. The Anasazi made their pottery by coiling up rolls of clay to form pots. Then they scraped the coils to make a smooth surface. Cooking pots are usually a plain gray color. Sometimes the potter created a design by changing the coils. They usually left the exterior coils unsmoothed. That gave the pot a rough effect that looks similar to the coils of a basket. The Ancestral Pueblos did not use painted pottery until after the Basketmaker II period.

Basketmaker III Period

The Basketmaker III period dates from about A.D. 400 to A.D. 700. There were important changes in



Pit house. People entered through a door into the small area on the right, called the antechamber. They used this area for storage. They used the large area for daily activities when they needed to be indoors.

village patterns and, possibly, socially. During the Basketmaker III period we find the first true settled villages. They are quite different from the villages of the Archaic and Basketmaker II period. There are many more Basketmaker III sites than there were Basketmaker II sites. This suggests an increase in population. Often archaeologists find sites located near good agricultural land. This suggests the Ancestral Pueblo relied more and more on agriculture. Researchers find decorated pottery and plain cooking ware in Basketmaker III sites.

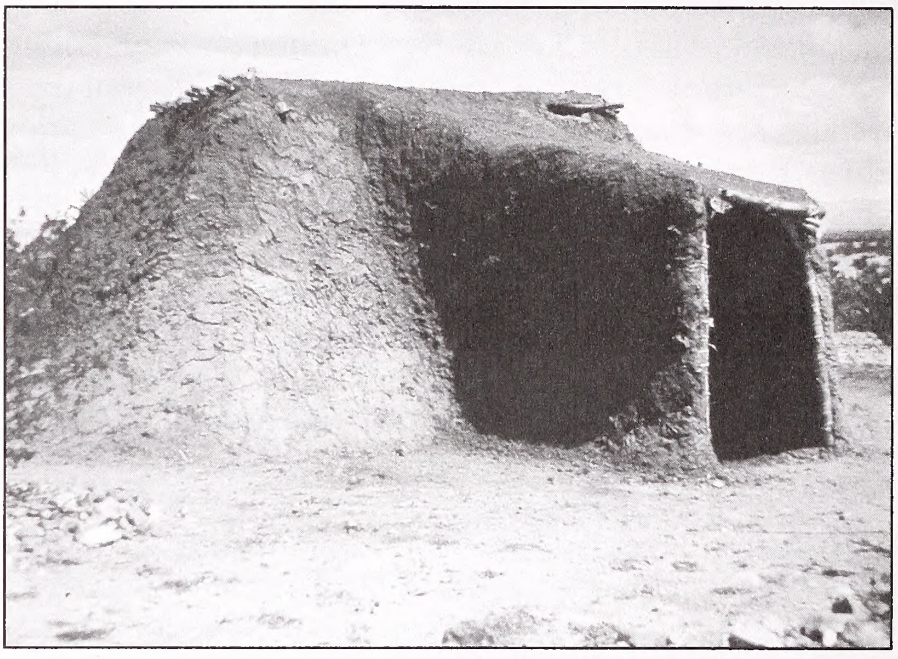
Villages

Basketmaker III people lived in PIT HOUSES. They dug large holes in the ground, 3 to 6 feet deep, oval or semi-rectangular in shape. The builders extended the earth walls of the pit up with a structure of logs and brush. They covered the entire structure with earth to seal out the rain. Pit houses had a hearth in the center of the floor. Directly above the hearth was a hole in the roof for the smoke to escape. Some Basketmaker III settlements consisted of only a few pit houses. Others had 20 or more. Archaeologists believe these large sites may have been places where people from smaller sites gathered. Perhaps they gathered there for ceremonies.

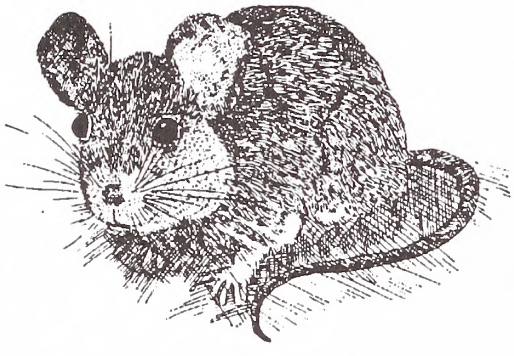
The Basketmaker III people were the first to use large structures for the whole community, called Great Kivas. Archaeologists find these structures especially at large sites. Great Kivas were like pit houses in construction. However, they were large enough to hold many people. Apparently, great Kivas were important until very late in the prehistoric period. Archaeologists think Great Kivas were gathering places for people from surrounding regions. There they shared information and maintained their ceremonial cycle.

New Tools

The Basketmaker III people made two important technological developments. Both relied increasingly on



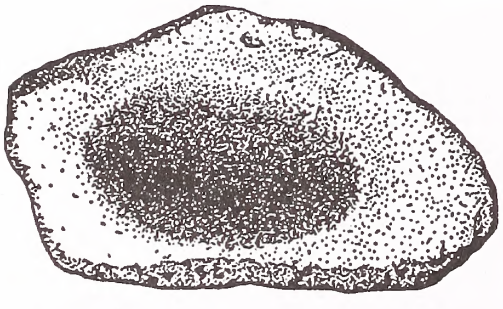
Basketmaker pit house showing entrance. Pueblo I pit houses were dug deeper into the ground and lacked the entryway. Instead people used the smoke hole for a door!



Field mouse. Why would using pottery rather than baskets for storage protect better against this field mouse? What would you use for a lid for your pot?

agriculture. During that period, the bow and arrow replaced the spear and atlatl. Archaeologists recognized this change because smaller points appear. Their size is correct for use on an arrow. The bow and arrow are faster and more accurate than the spear and atlatl. The Ancestral Pueblo could spend less time to hunting. With a bow and arrow, someone could hunt small game in thickly wooded areas. They could also find small animals like FIELD MICE around agricultural fields.

Another change was in the type of grinding stone used to process plants. We call the earlier grinding slabs, BASIN METATES, and small circular handstones, one-hand manos. During the Basketmaker III period, the people began to use trough metates and loaf-shaped two-hand manos. A person can grind corn more easily in a trough metate than on a slab. Grinding slabs were probably better for grinding grass seeds and other wild plants. Why would the development of the trough metate show increased dependence on agriculture by the Anasazi?



Basin metate

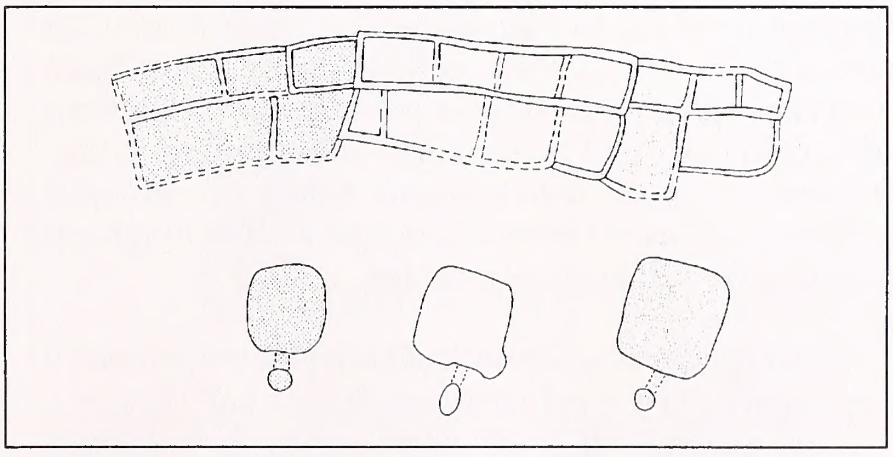
Pueblo I Period

The Pueblo I period dates from A.D. 700 to A.D. 900. During that time the people relied on increased agriculture. They changed architectural styles and uses. They continued to develop decorated pottery styles.

Several things indicate dependence on agriculture increased during the Pueblo I period. Like the Basketmakers, the Pueblos located sites in areas with good agricultural land. Their agricultural technology became more complicated. In some areas the people made terraced or gridded fields. Some people may even have used simple ways of supplying water, or **irrigation** methods, for their fields. They channeled water from streams or springs to fields.

During the Pueblo I period, Anasazi mothers began to carry their infants on cradleboard. Head straps on the cradleboards caused permanent flattening of teh back of the head. After the Pueblo I period, most Ancestral Pueblo adults had flattening of their skulls. Early archaeologists though that meant a new race of people had moved into the Anasazi area. Eventually they realized the Ancestral Pueblo's use of the cradleboard changed the head shape.

The typical Pueblo I settlement consisted of a curved row of aboveground rooms. There are usually about 6–10 rooms built of stone or jacal. Jacal is a wall covering made of woven sticks plastered with mud. The



The Duckfoot site, a small Pueblo I hamlet in southwestern Colorado.

people built several pit structures in front of the rooms. Beyond the pit structures was an area they typically used for trash. Archaeologists thought these settlements were the home of an EXTENDED FAMILY or perhaps two families.

There were also very large sites during Pueblo I times. They had many aboveground rooms and many pit structures. Like the Basketmakers, Pueblo I people needed a meeting place in large sites. The residents needed a place and customs that encouraged cooperation between families. Great Kivas continued to fulfill this function.

Lots of People...
AN EXTENDED FAMILY

Archaeologists have several terms for different types of families. The basic family is called a "nuclear" family. The word comes from the word nucleus, not from the bomb! A nuclear family is a mom, dad, and 2 kids. An extended family is the nuclear family + other relatives like grandparents, aunts and uncles.

An Argument Among Archaeologists

One of the most important things the Pueblo I people did was the construction of aboveground living structures. These are the early versions of the large pueblos built during later periods. The structures create an important research question for the Pueblo I period. How can we explain the change from underground pit houses to aboveground pueblos?

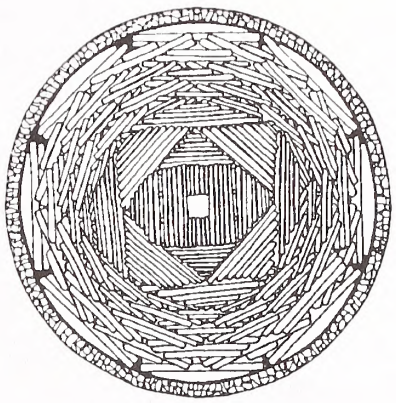
Aboveground structures developed from the storage pits that surrounded Basketmaker III pit houses. However, aboveground rooms later developed into living structures as well as storage rooms. Archaeologist Patricia Gilman thought that people needed more storage space when they farmed more. They needed to store corn and other crops. They needed more protected interior space in which to take care of corn. Corn requires hours of grinding before the cook can use it. It is difficult to increase space in a circular pit structure. However, they could easily add rectangular aboveground rooms. Furthermore, since aboveground rooms are grouped together, they are warmer living spaces. The single pit structures would have been colder.

Other archaeologists noticed that pit structures fall apart rapidly. The wood structure decays and the earth covering washes off with every rain. A well-built aboveground structure would require far less maintenance.

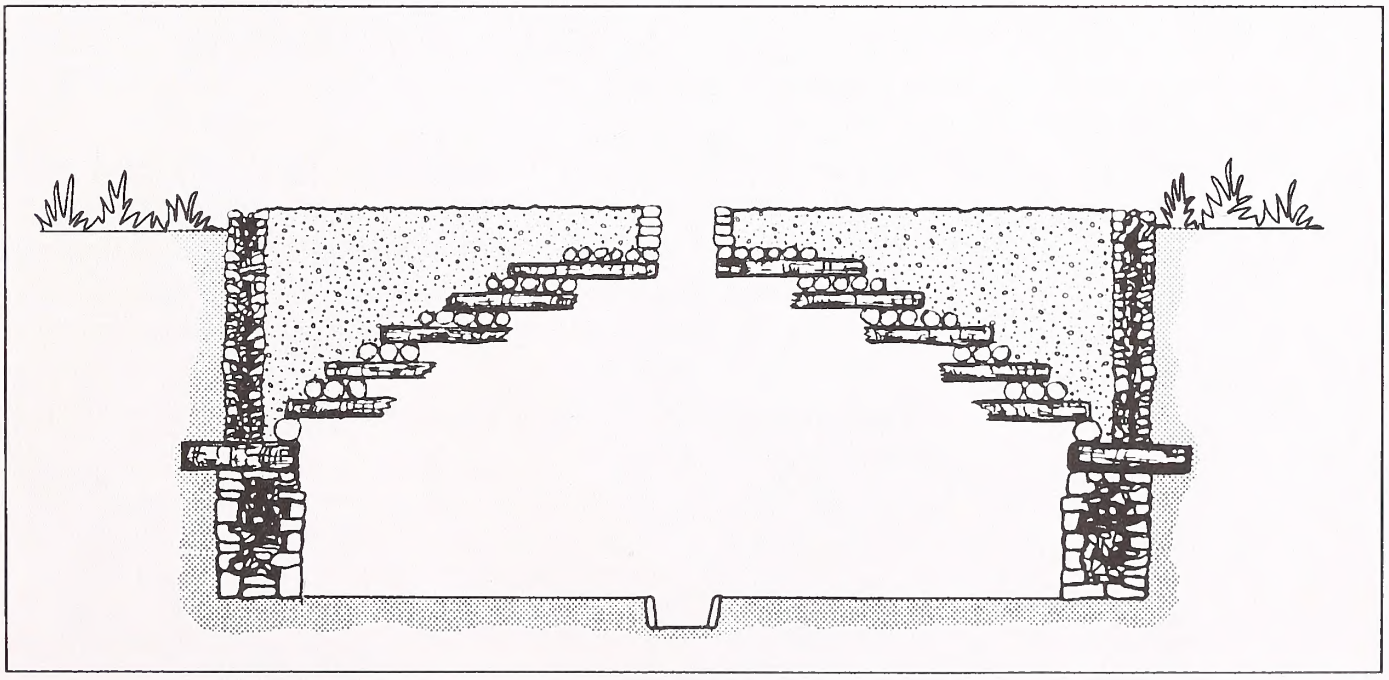
However, the people continued to build pit structures. Most archaeologists believe the people changed the use of the pit house from living structures to religious structures. Other archaeologists strongly disagree.

Many archaeologists thought since the people used aboveground structures, it meant that they no longer used pit structures as homes. Instead the pit structures became religious structures called *KIVAS* (Archaeologists often use the term *kivas* to name these structures. It comes from the term used for religious structures at modern Hopi pueblos.) Modern kivas have details or **features** that Pueblo homes don't have. Archaeologists find these features in prehistoric kivas. They assume the people used the features in a similar religious way. Modern kivas bring together the members of different families in a village. This is similar to what is done in churches and synagogues.

Recently, archaeologists began questioning the idea that pit structures became kivas before Pueblo IV times. The early pit structures contained nonreligious artifacts. Perhaps the people continued to live in them. Another argument concerns the numbers of "kivas."



Kiva roof construction. Kiva roofs were made by alternating poles on top of each other, middle to end, much the way you would make a ice cream stick roof. Try it!



Kiva cross-section view. Kivas were completely underground. The roof was strong enough to allow dirt to be put over it, creating a flat surface on which to walk. The fire pit is in the center. People entered down a ladder through the smoke hole on the top. Air came in through a tunnel from the floor to the ground surface.

Archaeologists compare the number of "kivas" in prehistoric pueblos to the number in modern Pueblos.

In a modern pueblo with several hundred rooms there may be four or five kivas. Among modern Pueblo people, mostly men use the kivas for social and religious activities. They weave cloth, make and repair tools, conduct ceremonies in the kivas.

Prehistoric settlements contrast with modern pueblos. There is often one pit structure for every 6 rooms. For example, in a village of 100 rooms, there might be 16 or 17 kivas. This would mean that only one or two families used each kiva. Perhaps small kivas were not religious structures that brought together large groups of the community. Great Kivas were probably the primary community and religious structures in use. It seems more likely that the people continued to use pit structures as living areas. Perhaps they sometimes used the structures for religious purposes. They used above ground rooms to increase the amount of available storage space. Which side of the argument are you on?

Word List

culture (KUL-chur) The customs, beliefs, and ways of life of a group of people.

features (FEE-churz) Things made by people and left behind like trash dumps, outhouses, and the remains of buildings or structures. These can also be parts of structures like benches and hearths. Features were not movable. They provide clues for archaeologists about life-styles and culture.

irrigation (ear-rih-GAY-shun) The act of supplying land with water.

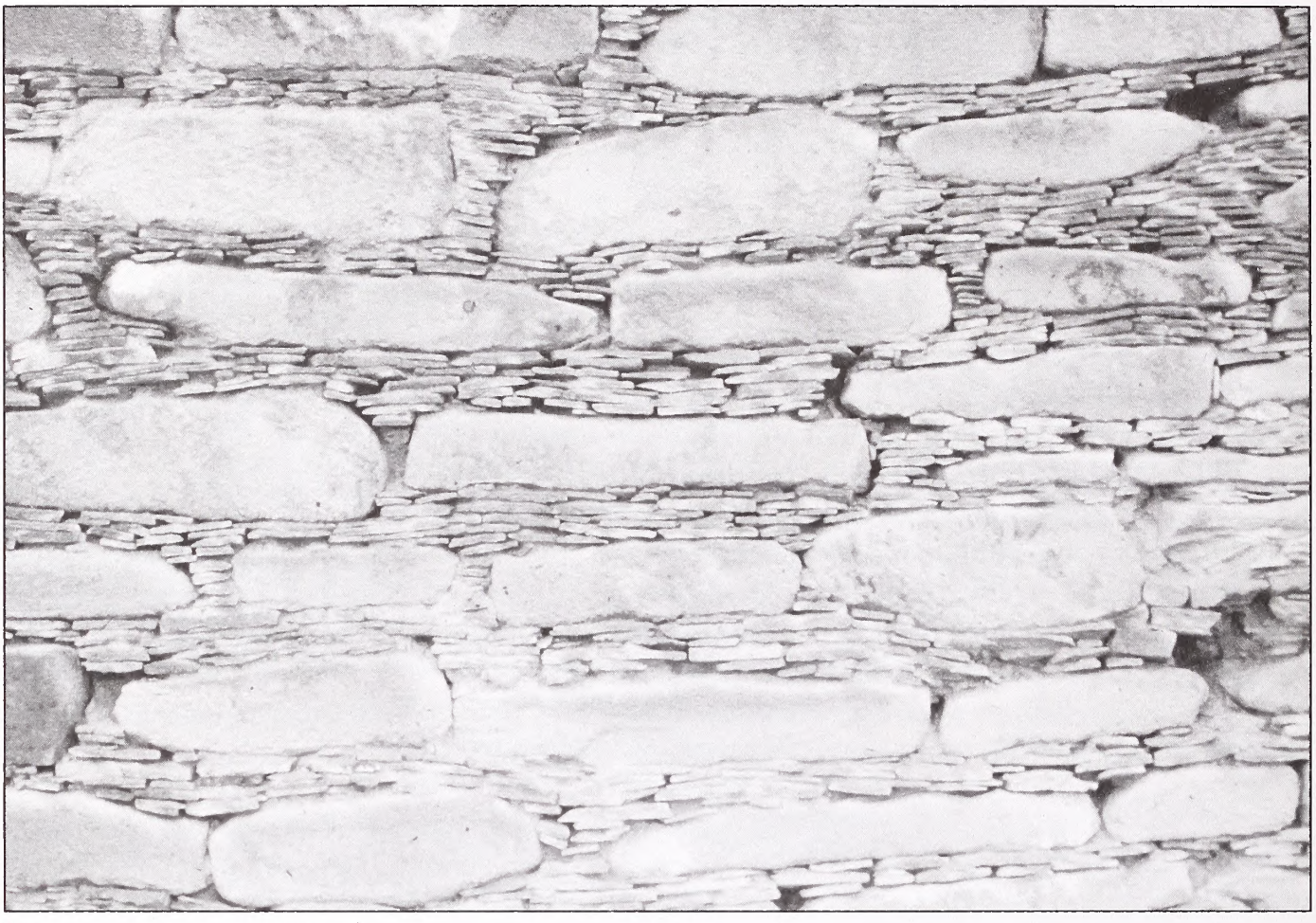
4 The Ancestral Pueblo: Pueblo II
(A.D. 900–1150)

Chacoan ceramic ware pitcher

"The Chaco Phenomenon"

The Pueblo II period dates from about A.D. 900 to A.D. 1150. At the close of the Pueblo I period small pueblos with several rooms and a kiva, known as **unit pueblos,** dotted the landscape. One or two families lived there. A few villages were much larger. That way of living continued into the Pueblo II period. People had not given up hunting and gathering. However, they relied very heavily on corn and other domesticated

An aerial view of Pueblo Bonito at Chaco Canyo National Historical Park, New Mexico



Veneer masonry construction

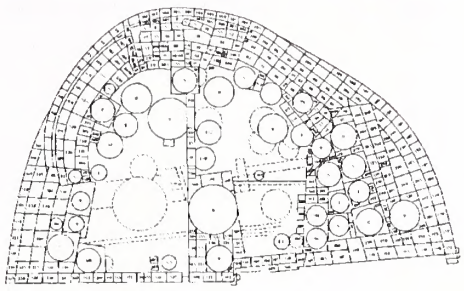
crops. Then, at the beginning of the Pueblo II period, unusual things began happening in Chaco Canyon, New Mexico. (See map page 4-4.) The most interesting thing about it is what archaeologists call *the Chaco Phenomenon*. It is probably the most important development in Anasazi prehistory.

Chaco Canyon lies in the center of the San Juan Basin of northwest New Mexico. It is 10 miles long and about one-half mile wide. Chaco Wash runs through it. This is an arid region where farming would be extremely difficult. In the early A.D. 900s the Ancestral Pueblo began constructing unusual buildings in Chaco. The most recent evidence suggests they began as early as the late A.D. 800s.

Chacoan Great Houses

One of the earliest buildings is now the huge ruin called PUEBLO BONITO. The early building at Pueblo

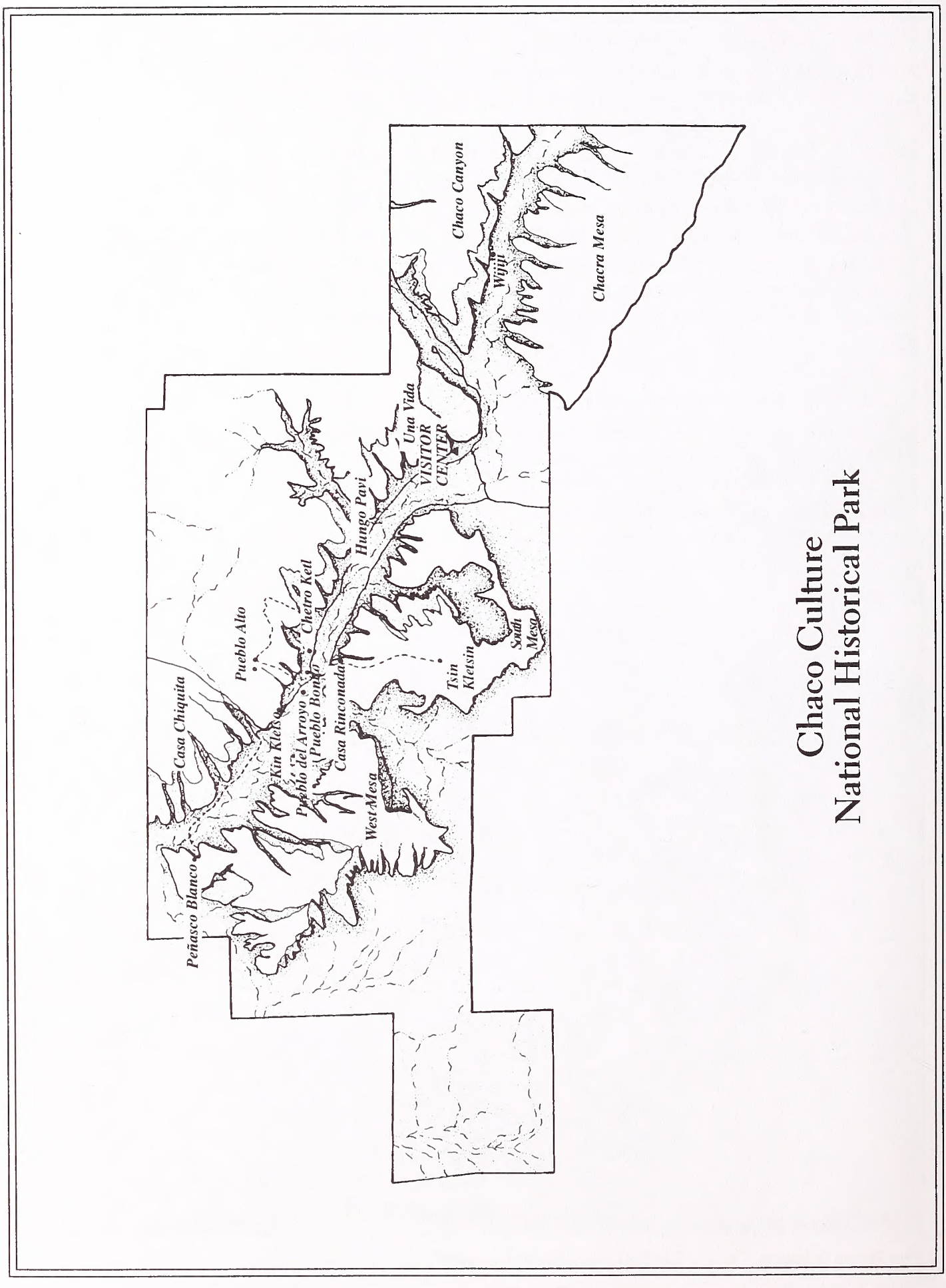
Bonito consisted of a large arc of rooms. It was similar to the typical unit pueblo. However, it was far more massive in size and construction. The Chacoans built early Pueblo Bonito with unusually thick walls. The rooms were much larger than the typical room in unit pueblos. The Chacoans topped the rooms with an upper story. These features were extremely unusual for Anasazi architecture at the time. During the next 200 years, construction of huge, multi-storied buildings continued at Chaco Canyon. The people built more than a dozen of these huge structures, called *Chacoan Great Houses*. Several are only a stone's throw from Pueblo Bonito.

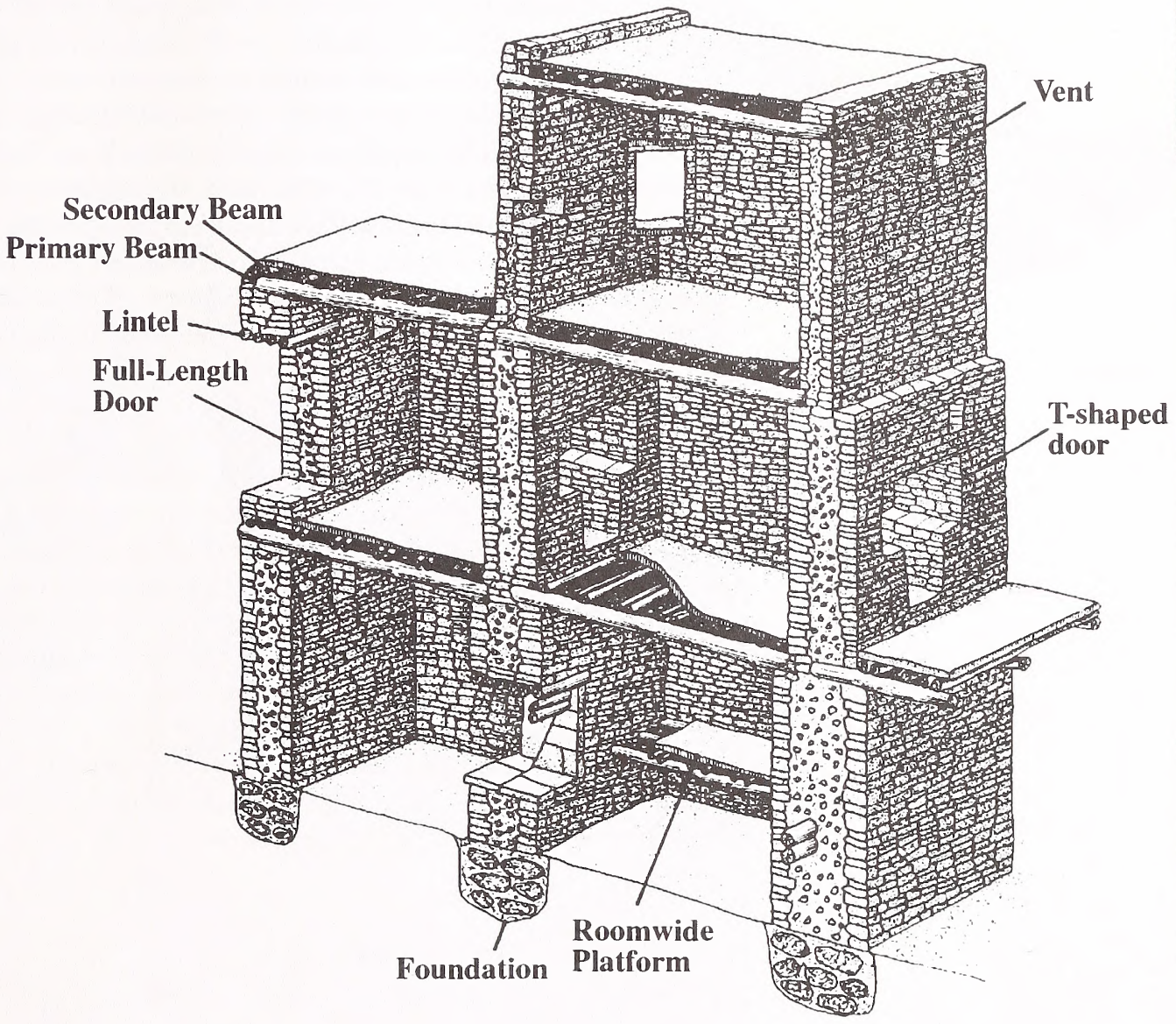


A cross-section view of Pueblo Bonito

Great Houses were nothing like any structures previously seen in the Anasazi world. The Chacoans built the walls with a masonry technique called *CORE AND VENEER*. It makes the walls very thick and sturdy. They built many large rooms — Pueblo Bonito

The Great Kiva at Chetro Ketl site in Chaco Canyon

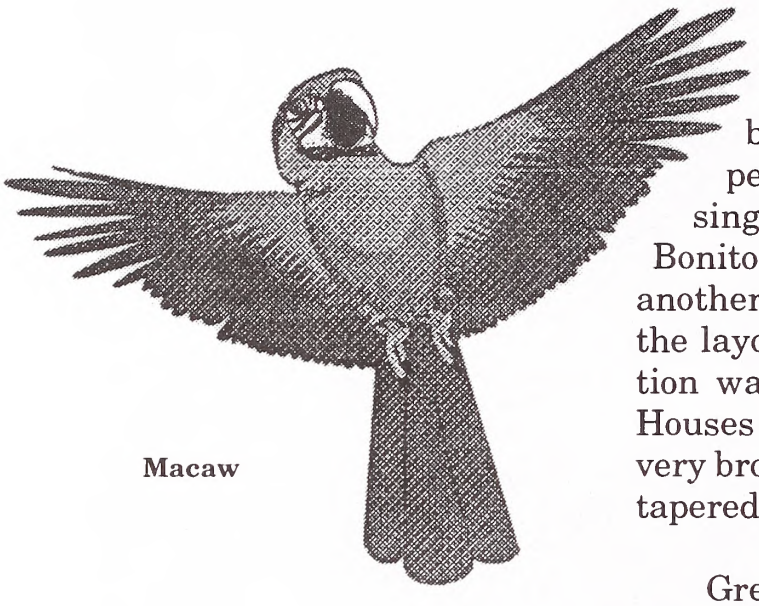

Chaco Culture
National Historical Park
Chaco Canyon
Wijiji
Chacra Mesa
Una Vida
VISITOR CENTER
Hungo Pavi
Chetro Ketl
Pueblo Alto
Pueblo del Arroyo
Pueblo Bonito
Casa Rinconada
Kin Kletso
Casa Chiquita
West Mesa
Tsin Kletsin
South Mesa
Peñasco Blanco



Chacoan Great House Construction

How would you build a wall that won't fall down if you don't have steel or wood? If you want to build a wall 3 or 4 stories tall how do you build it with stone? Try some experiments with blocks of wood or stone. The Chacoans found an excellent way to build walls three or four stories high. First, they dug a pit to make a strong footing or foundation for the wall. Second, they made the wall thicker at its base than at its top. Finally, they built the wall out of several layers. They made two outer layers, called the *veneer*, of neatly stacked stone. The center layer, called the *core*, was made of more stone.

had more than 800. Most Great Houses had a well-defined plaza area often with a GREAT KIVA built into it.



Macaw

Perhaps most interestingly, the Chacoans carefully planned and designed the Great Houses. The Great Houses did not simply grow by adding a few new rooms as the need arose. The people planned and built up to 100 rooms at a single time. The high curving back wall at Pueblo Bonito and other sites is very hard to engineer. It is another indication that the Chacoans carefully designed the layout of these structures. Multi-storied construction was also a planned feature. Some of the Great Houses reached five stories high. The lower walls were very broad to support the expected load. Then the walls tapered as they went up.

Great Houses were also *over-engineered*. They were much more carefully built than would be necessary, even given their design. The walls are much thicker than they needed to be to support the load they had to carry. The roof beams are much closer together than is necessary just to support the roof. Such carefully built roofs represented a tremendous amount of labor. Chaco is and was treeless. The people had to carry beams by hand from forests more than 50 miles away. Obviously, these Great Houses were very important structures to their builders. But who were the builders?

Who were the Chacoans?

Some early Chaco archaeologists thought the *Toltec* people engineered the construction. The *Toltecs* were from the civilizations of central Mexico. The archaeologists felt that the buildings in Chaco were too unusual. They were too unlike previous Anasazi ways of building or **architecture**. They thought that the Ancestral Pueblo could not have built them. The theory was that Mexican explorer-traders, called *pochteca (poash-TAKE-uh)*, established bases in the Southwest. There they could trade goods from Mexico. These were primarily copper bells and MACAWS — birds prized for their

colorful feathers. They traded for goods from the Southwest, primarily turquoise.

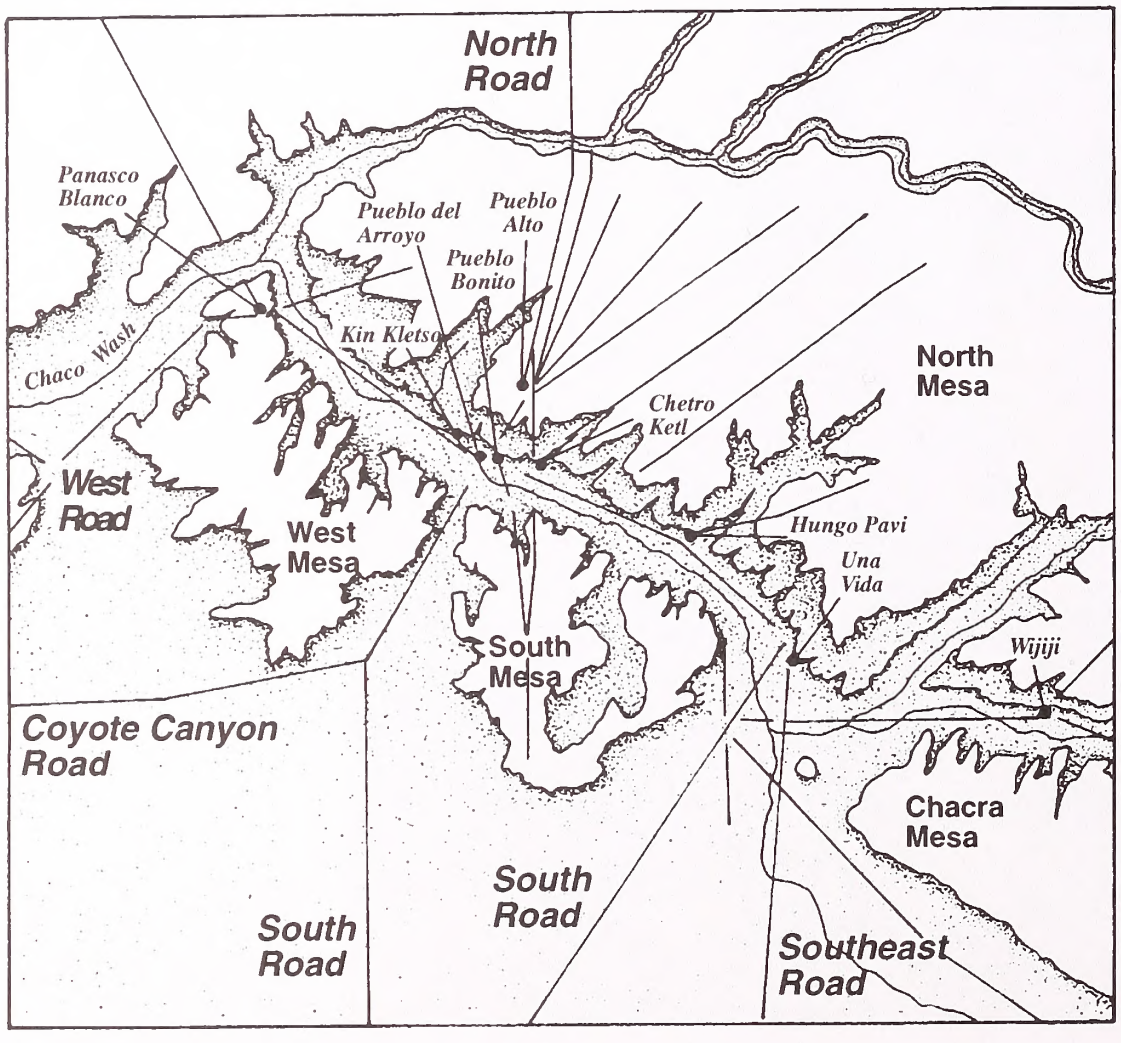
In the past two decades, most archaeologists have dismissed the Mexican trader theory. Archaeologists did new, more detailed research on the architecture of Chaco Canyon. They found a progression of development in the construction. The early structures began with small buildings. These were much like typical unit pueblos of earlier periods. It ended with the elaborate constructions of the Chaco Great Houses. We believe the builders of these large structures learned their technol-

Chacoan stairway

ogy by trial and error. There was no architectural influence from Mexico. Chaco was a very important homegrown development.

Chacoan Roads

Archaeologists discovered that Chaco Canyon was the center of a large regional network of settlements. The network reached much of the Anasazi world during the Pueblo II period. The area covered most of the Colorado Plateau. PREHISTORIC ROADS led off in all directions from Chaco. They connected the Canyon with large Great House settlements many miles away. These roads were very unusual. They were very wide, sometimes more than 25 feet wide, and very straight. When the builders encountered an obstacle such as a cliff or mesa, they constructed STAIRWAYS. Some roads had



The Chacoan prehistoric road system

curbs. There is evidence that the people carefully maintained the roads.

The Ancestral Pueblos had no wheeled vehicles or beasts of burden. The purpose of such wide roads is uncertain. Some archaeologists believe the roads had two purposes. They allowed goods and people to move easily from place to place. Second, the roads were important in the ceremonial life of the Pueblo II people.

Chacoan Outliers

We call the Great Houses outside Chaco Canyon **OUTLIERS.** Chacoan roads often lead to Chacoan Outliers. The Chacoans built them much like the structures in the Canyon. They had thick walls, large rooms, and multiple stories. However, they are generally smaller than Pueblo Bonito and the other large sites inside the Canyon. A community of small unit pueblos usually surrounds the outlier. A Great Kiva is often part of the community.

One of the most well known outliers is AZTEC RUINS located in Aztec, New Mexico. An early archaeologist, Earl Morris, reconstructed the Great Kiva at Aztec. Visitors can see what it might have looked like when it was in use. Another outlier is SALMON RUINS, located near Bloomfield, New Mexico. It had an unusual tall building sometimes called a *tower kiva*. It was not really a tower but was built high in roomblocks. CASAMERO, near Prewitt, New Mexico, is an outlier on Bureau of Land Management land. (See map page 4-11.)

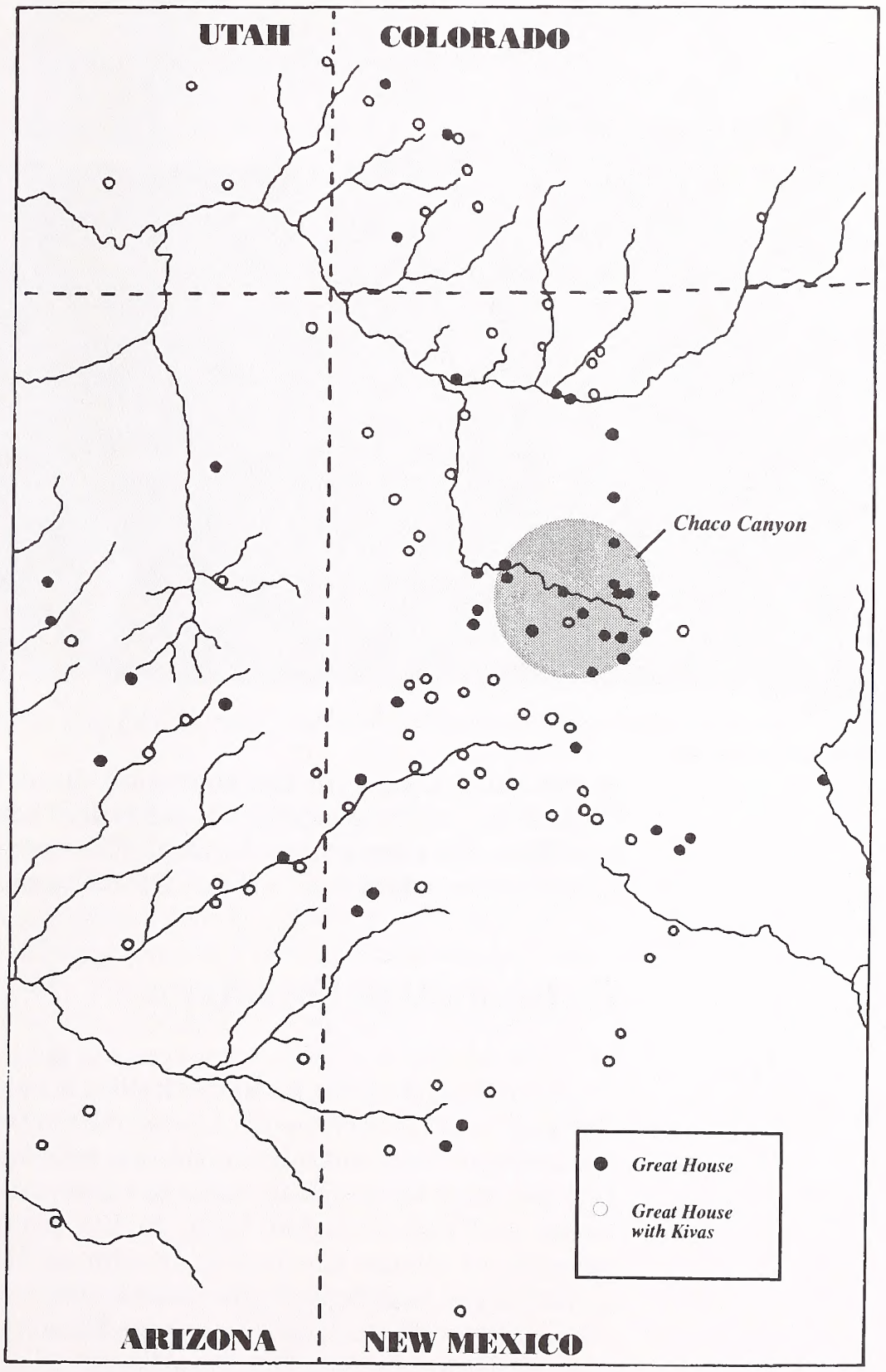
Lizard Effigy from the tower Kiva, Salmon Ruins, near Bloomfield, New Mexico.

Questions About the Chaco Phenomenon

The Chaco Phenomenon affected most of the Anasazi world during the Pueblo II period. Chaco Canyon was the center of a large community network with prehistoric roads. Communities outside the canyon consisted of small unit pueblos surrounding a Great House. Even in Chaco Canyon, they probably used small unit pueblos

Aerial view of Salmon Ruins, a Chacoan outlier near Bloomfield, New Mexico

Aerial view of Aztec Ruins National Monument and land to the North, near Aztec, New Mexico



Chacoan Outliers

Casamero Ruin, a Chacoan outlier near Thoreau, New Mexico

at the same time with the enormous Great Houses. What is the explanation for this pattern? What caused the Chaco Phenomenon to develop? Why was it maintained? Why, about A.D. 1150, did it collapse?

Redistribution Hypothesis

One testable idea, or **hypothesis,** is that Chaco Canyon was the center of a way of collecting and spreading a large number of things, called a **redistribution** system. They collected corn and other items and redistributed them to the people. The location of Chaco Canyon is in almost the exact center of the San Juan Basin. This basin is a largely barren depression. It covers much of the northwest part of New Mexico. The weather in the area is difficult to forecast and often harsh. Archaeologists think people from throughout the Basin brought food and other goods to Chaco Canyon. There they could store the goods in the large Great Houses. Then they

could send the goods to those people who needed them.

There is evidence for this hypothesis. Many of the Great House rooms do not seem to have been lived in. Archaeologists assume the people use the rooms for storage. When one region's growing conditions became bad the Chacoans sent stored food. The stored food was from other areas where conditions were better. They sent the goods from Chaco Canyon to help those in need.

To test this hypothesis, archaeologists looked for evidence of trade. They checked to see if the Chacoans traded pottery, flaked stone material, and other goods from one place to another. They found little evidence that the Chacoans had redistributed these goods from Chaco. It is still possible, however, that they redistributed food. Food decays rapidly so there would be little evidence left today.

Chacoan ceramic mug

Turquoise Hypothesis

Another hypothesis is that Chaco Canyon was a center for processing and spreading out or **distributing** turquoise. Turquoise is a blue-green stone. Apparently the Anasazi highly prized it. Archaeologists found a lot of turquoise at Pueblo Bonito and at other sites in Chaco Canyon. The people made it into a variety of beads, pendants, and other ornaments. Researchers found jewelry-making workshops at both large and small sites in Chaco. The hypothesis assumes that turquoise was ceremonially important to the Anasazi. The control of turquoise exchange would make the residents of Chaco Canyon extremely powerful.

Some archaeologists argue against this hypothesis. The nearest source of turquoise is almost 100 miles away at Cerrillos, New Mexico, near Santa Fe. The Chacoans would have a difficult time keeping other people from using the distant source. Furthermore, there is no clear evidence that the Chacoans traded their turquoise objects to outliers.

No Single Hypothesis

These days there is no single hypothesis to explain the Chaco Phenomenon. Most archaeologists agree that Chaco was probably a very important ceremonial place to the Anasazi. It is likely that, despite the huge buildings, there were only a few permanent residents in Chaco. There is good evidence for periodic gatherings of large numbers of people there. Perhaps people came in from around the region once or twice a year. They followed the broad roads and helped maintain the enormous Great Houses like Pueblo Bonito. They exchanged goods and conducted ceremonies. Archaeologists are still working to understand the Chacoan political and social system.

About A.D. 1130, construction at the Great Houses in Chaco Canyon ceased. People continued to occupy the Canyon off and on for the next 100 years and more. However, the Chaco Phenomenon had come to an end. What lead to the end of the Chaco Phenomenon? A serious drought in the mid 1100s may have been one factor. There may also have been social or political reasons for its decline.

Word List

architecture (AR-ki-TEK-chur) A style or method of building.

distribution (dis-truh-BU-shun) The act of taking something and spreading it out.

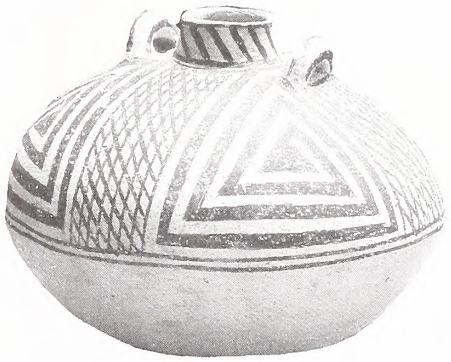
hypothesis (hye-POTH-i-sis) A proposed explanation that can be tested by further investigation.

outlier (OUT-lye-ur) A Chacoan great house located outside Chaco Canyon.

redistribute (ree-dis-TRIH-bute) To take something that has already been distributed and spread it out again.

unit pueblo (YOU-nit PWEB-low) A small pueblo with several rooms and a kiva.

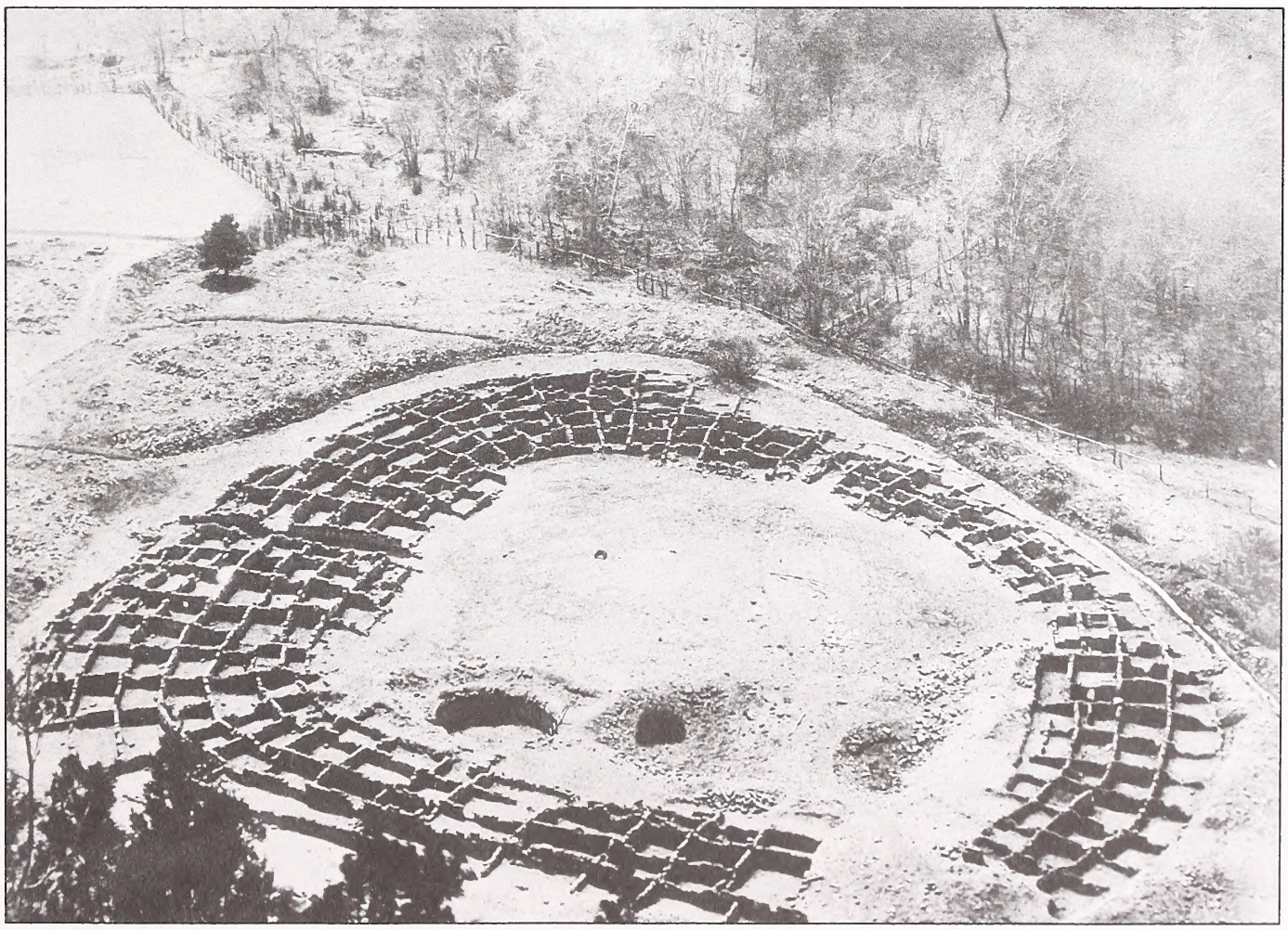
5 The Ancestral Pueblo: Pueblo III to Pueblo IV (A.D. 1150–1300)



Pueblo III style ceramic water jar

Pueblo III A.D. 1150–1300

During the Pueblo III period, Chaco Canyon became much less important. It was no longer the center of the Ancestral Pueblo world. They changed the location of their villages at that time. They began to build large sites along the edges of the earlier Chacoan world. At what is now Mesa Verde National Park to the north, the Ancestral Pueblo built the famous cliff dwellings. They built large sites at Zuni to the south, and in

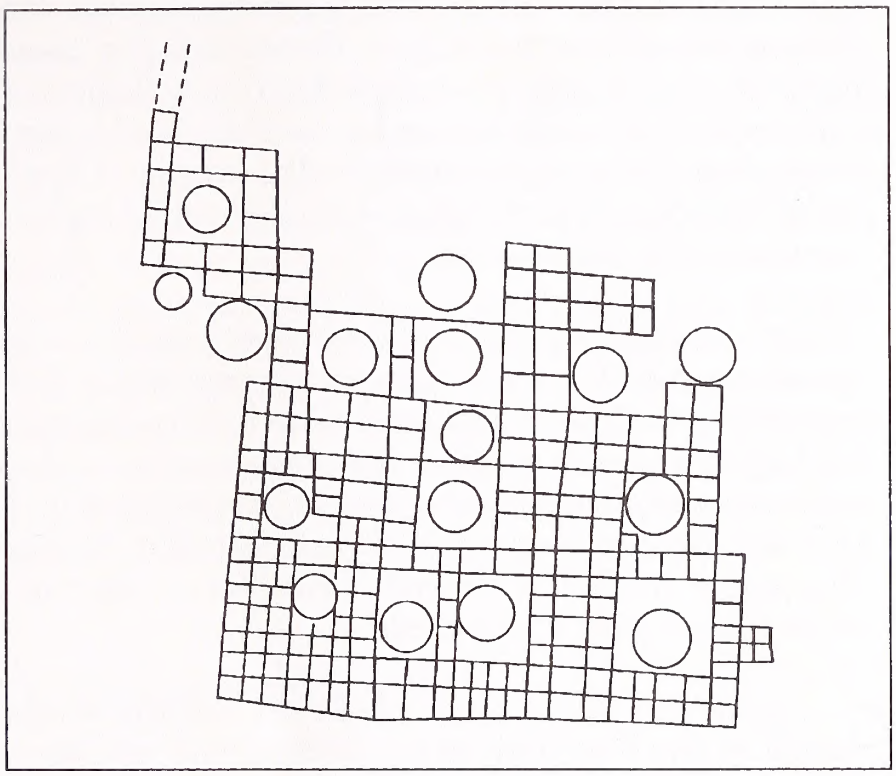


Tyuonyi Pueblo, about 1909, a Pueblo IV site at Bandelier National Monument, New Mexico

northeastern Arizona to the west. Population also began increasing in the Rio Grande area to the east. They no longer built the old pattern of small communities surrounding a Chacoan Great House. Many people now gathered in a single large settlement.

Some Pueblo III villages were similar to Chacoan Great Houses. They were as large. Many Pueblo III sites have hundreds of rooms. They had a planned layout, and multi-storied construction. In fact, the Ancestral Pueblo occupied many Chacoan outliers again during the Pueblo III period. Aztec and Salmon Ruins are examples. In contrast to the seemingly empty earlier Chacoan Great Houses, the people now lived in the big villages. Pueblo III sites were all clearly the residences of a large number of people. Ancestral Pueblos occupied many for only a short period of time. Then they abandoned the sites and moved elsewhere to construct another, similar settlement.

The site of Crumbled House ruin



Site-plan of the Lower House of Crumbled House Ruin

Crumbled House

CRUMBLED HOUSE is a Pueblo III site located on the west slope of the Chuska Mountains. Its location is about 50 miles north of Gallup, New Mexico. The Ancestral Pueblo built the village at two levels. The Upper House perches at the tip of a mesa almost 100 feet above the valley floor. The people built it in the shape of a triangle. It filled the available space on the mesa tip. The two story structure had at least 80 ground-floor rooms. The Upper House has several interesting features. The Ancestral Pueblo built a circular structure like a tower at each corner of the triangle. A ditch or moat backed by a stone wall protected Upper House from the rest of the mesa. Clearly, the residents of Crumbled House had concerns about defending themselves. They built Lower House along the slope of the mesa in an almost terraced fashion. It has 150 rooms and 16 kivas. A stairway probably connected the Upper and Lower sections of Crumbled House. Although located west of Chaco Canyon, Crumbled House contained pottery like that made at Mesa Verde.

A Pueblo III style corrugated ceramic pot

Like Crumbled House, other Pueblo III sites often show a concern with defense. Sometimes the people built the site in a good place for defending it. Sometimes they built multi-storied roomblocks that faced inward. That presented an impenetrable wall to attackers. Southwestern archaeologists debate the causes of this grouping into large settlements.

Two things may have allowed many people to live closer together. One is that the environment was favorable. The other is improved conditions for growing crops. Perhaps changes in social or religious practices encouraged people to live in larger groups. The collapse of the Chacoan System may have led to disruption. Perhaps the people needed to defend themselves either from other Pueblo people or outsiders.

Pueblo style rock art: A petroglyph from the La Cienega area of New Mexico

In the late 1200s the people left most of the Anasazi region in the Four Corners. A widespread and severe drought occurred in the late 1200s. Sometimes archaeologists call it the *Great Drought*. Some archaeologists believe it was the cause for the abandonment of the Four-Corners. More abundant rainfall and reliable streams in the northern Rio Grande may have attracted the people. North-central New Mexico is still the location of many modern Pueblo villages. The Anasazi were the ancestors of the modern Pueblo people.

Pueblo IV Period A.D. 1300–1540

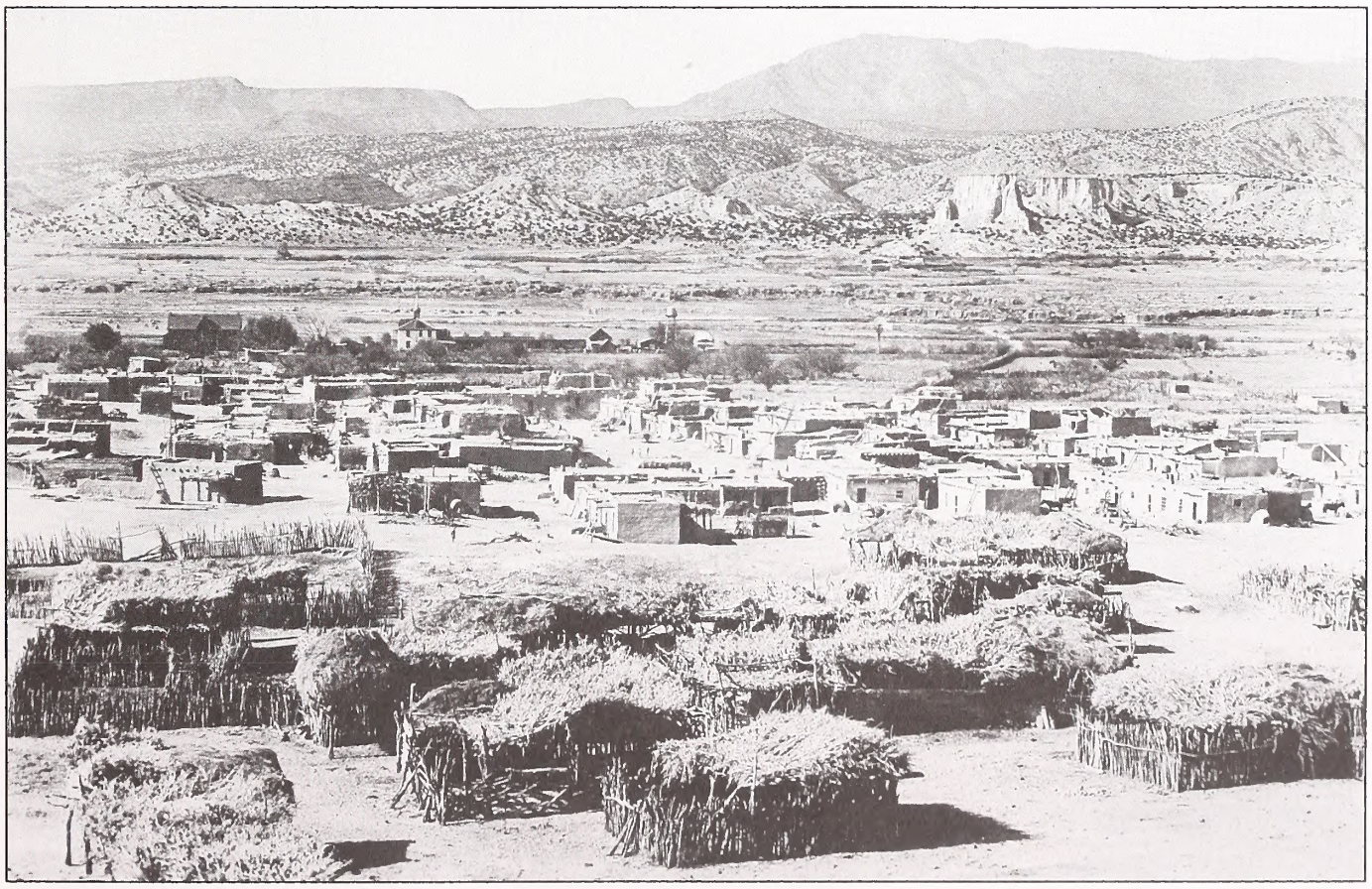
The Pueblo IV period is the time just before the first Europeans entered the Southwest. It ended in 1540 when Coronado, the Spanish conquerer or **conquistador**, led his expedition through the Southwest. During the Pueblo IV period the people moved their villages again, that time to new places many miles away. The Ancestral Pueblo left the Four-Corners area. That included Chaco Canyon, the San Juan River Valley, Mesa Verde, northeastern Arizona, and southwestern Utah. Many of the people built enormous new villages, such as TYUONYI PUEBLO (Page 5-1) in north-central New Mexico. They were along the Rio Grande and the rivers that feed into it. The area had had a small population during earlier periods.

During the Pueblo IV period most of the people lived in the northern and central Rio Grande regions. The other major concentration of Pueblo people in New Mexico was at Zuni. In the Rio Grande area, we find large Pueblo IV sites. They are located from TAOS in the north to beyond present-day Socorro, well to the south. Very large populations were established in several areas. One was in the Chama Valley, near present-day Espanola. Another was in the Jemez area near the location of JEMEZ PUEBLO today. Others were the Galisteo Basin, southeast of Santa Fe; the Estancia Basin, southeast of Albuquerque; and the Socorro area. The residents of these areas were the ancestors of the modern Pueblo people. (See map page 5-6.)

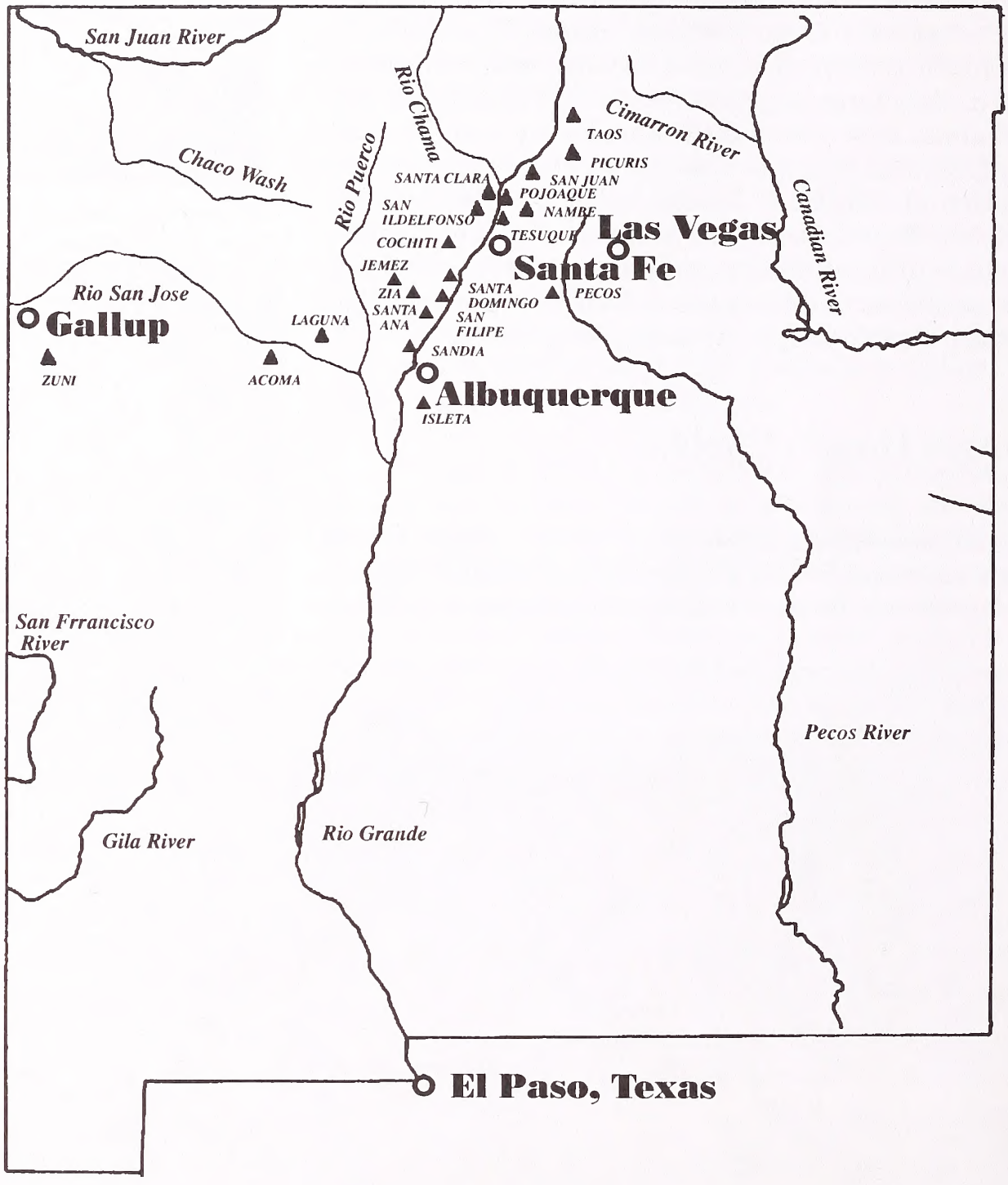
Bisquitware ceramic bowl. A bowl of Pueblo (Tewa) design1

Arroyo Hondo Pueblo

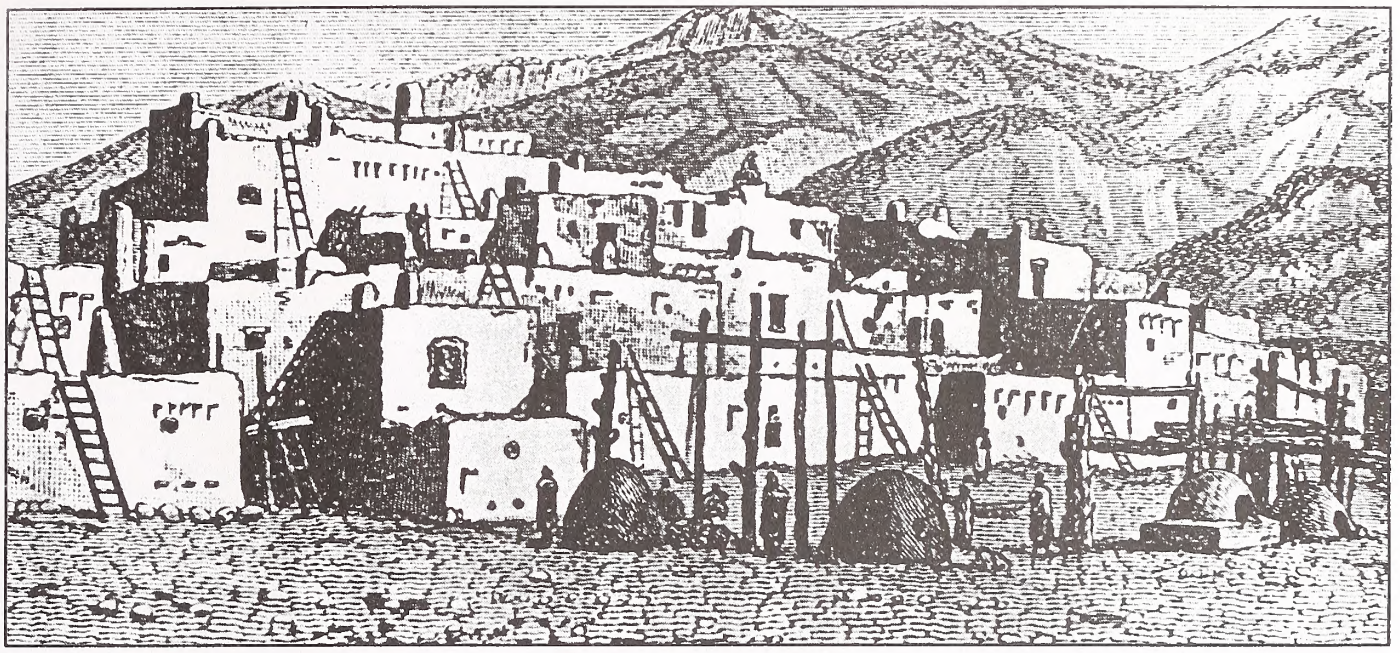
Archaeologists know more about Arroyo Hondo than any other Pueblo IV site. Arroyo Hondo Pueblo is a large Pueblo IV site located just five miles from Santa



Looking west from Jemez Pueblo, New Mexico, about 1939



The Pueblos of New Mexico

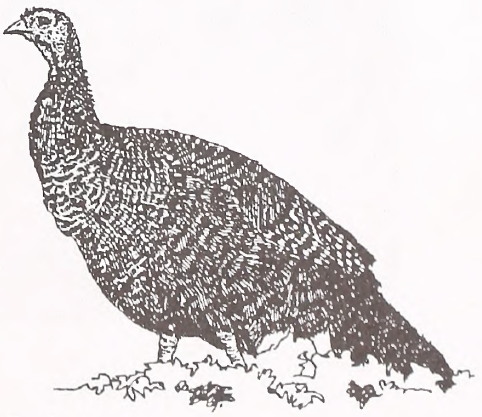


Early engraving of Taos Pueblo, New Mexico

Fe. Douglas Schwartz of the School of American Research excavated the site during the early 1970s. Arroyo Hondo people apparently built it very quickly in the early 1300s. Construction began about 1315. They built more than 1,000 rooms in about 10 or 15 years. Between 1,000 and 2,000 people lived there.

Arroyo Hondo is one of the first villages of its size in the northern Rio Grande. Later settlements were equal in size or larger. The people built roomblocks around enclosed or partially enclosed plazas. They planned at least some of the building. They constructed several rooms at one time. Schwartz found only six kivas at Arroyo Hondo. He found all but one located in plazas.

Archaeologists disagree what the size and layout of sites like Arroyo Hondo mean. To some archaeologists it shows a concern for defense. Others point to the importance of the plaza as ceremonial space. Agricultural techniques in use at the time may have increased food supplies. Increased food supplies would have allowed many people to gather at a single settlement, at least for a time.



Turkey

The people of Arroyo Hondo grew corn in nearby fields. They kept domesticated TURKEYS in pens in the plazas. They hunted deer and gathered wild plant

Acoma Pueblo, New Mexico, about 1904. Acoma Pueblo is also known as "Sky City" and is located near Grants, New Mexico.

foods in the surrounding countryside. Very shortly after construction at the settlement was completed, the people left Arroyo Hondo. By 1335, there may have been no one living at Arroyo Hondo.

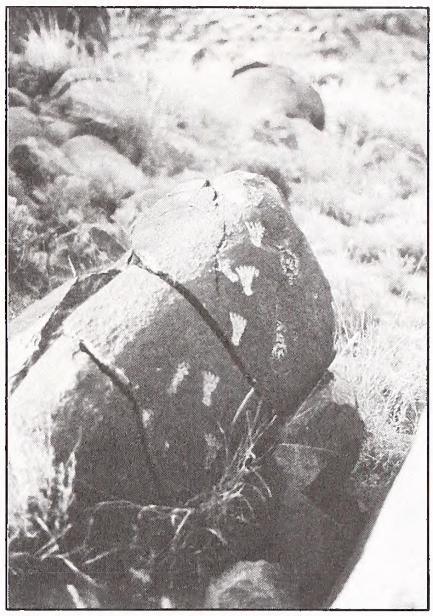
We are not certain why the people left Arroyo Hondo. Such short-lived settlements were common in the northern Rio Grande during that period. A drought during the 1330s may have made agriculture difficult at Arroyo Hondo. Possibly too many people lived at the site regardless of environmental conditions. Perhaps there were not enough fields to grow food. Even resources such as firewood may have become scarce in the surrounding region. Finally, in any village, disputes arise and must be settled. Perhaps at Arroyo Hondo, there weren't enough customs and rules. Then so many people could not live together in harmony in a single settlement.

Ogapoge jar. Tewa pottery from the Upper Rio Grande area of New Mexico

Almost 40 years after people left Arroyo Hondo, some people reoccupied it. That time the settlement was much smaller. They constructed only 200 rooms directly on top of the earlier settlement. The population of the second occupation was probably between 300 and 500 people. Perhaps the available farming land and wild resources more easily supported a smaller number of people. The second occupation was also short-lived. The people left Arroyo Hondo for the last time in the early 1400s.

During the Pueblo IV period archaeologists believe there was a common pattern. The pattern was one of rapid construction of large settlements, short-lived occupation, and rapid abandonment. The environmental and social causes for the pattern are currently an important Southwestern research topic.

When the first Europeans entered the Southwest this pattern was in place. Their arrival halted the centuries old process of cultural development. Pueblo IV people were the ancestors of the modern Pueblo people. They continue to occupy villages along the Rio Grande and at ACOMA and Zuni. (See map page 5-6)



Northern Rio Grande style rock art from the Rio Grande Gorge area of New Mexico

Word List

conquistador (kon-KEES-tuh-door) A Spanish word meaning *one who conquers.* The Spanish who explored and plundered the New World were called *conquistadors.*

6 The Mogollon Area

(A.D. 500–1450)

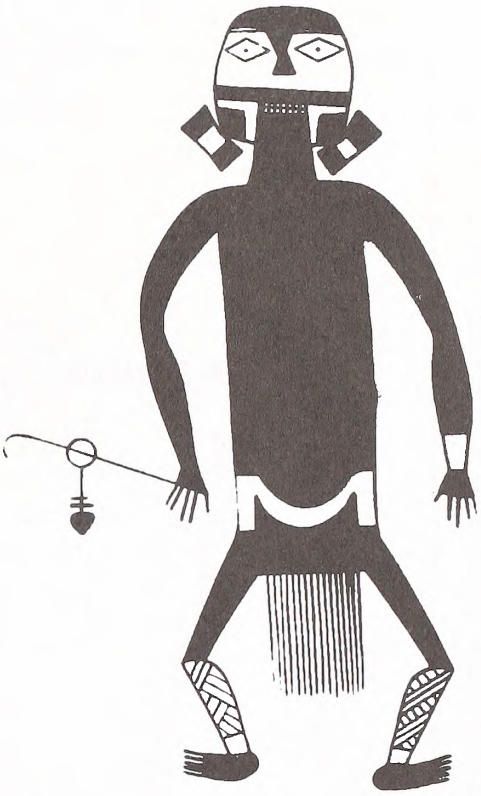
Some of the most famous prehistoric bowls in the world were found in New Mexico. Read on to find out why this is a problem for New Mexico archaeologists.

In New Mexico, the Mogollon culture area covers mostly the southwestern portion of the state. Here, the Mogollon Rim marks the southern border of the Colorado Plateau. It is an area of high plateaus cut by small creeks. It forms a region of tall mountains and small mountain valleys. At the edge of the Mogollon uplands, the pinyon and juniper environment of the Colorado Plateau meets the low deserts. It creates an area rich in natural resources. (See map page 6-2.)

Archaeologist Emil Haury defined the MOGOLLON CULTURAL SEQUENCE in the 1930s. He excavated two sites in southwestern New Mexico, the Harris Site and Mogollon Village. These sites had pottery and architecture that were significantly different from those of Ancestral Pueblos. He named the culture after the Mogollon Mountains.

Haury found that the Mogollon's subsistence differed from that of the Anasazi before A.D. 1000. The Mogollon relied far more on hunting and gathering than did the agricultural Ancestral Pueblos. Mogollon people lived in pit houses far later in time than the Anasazi did. They did not build aboveground Mogollon structures until after A.D. 1000. The Anasazi began building aboveground structures 300 years earlier. Mogollon pit houses were less elaborate than those of the Ancestral Pueblo. They tended to be irregularly shaped and constructed.

Early Mogollon pottery was brown. It was clearly different from the Anasazi black-on-white decorated pottery and gray utility ware. Later Mogollon area pottery, such as Mimbres, *was* black-on-white. Haury thought that indicated other people came into the area from the north. Most archaeologists now believe that



Mimbres pottery design

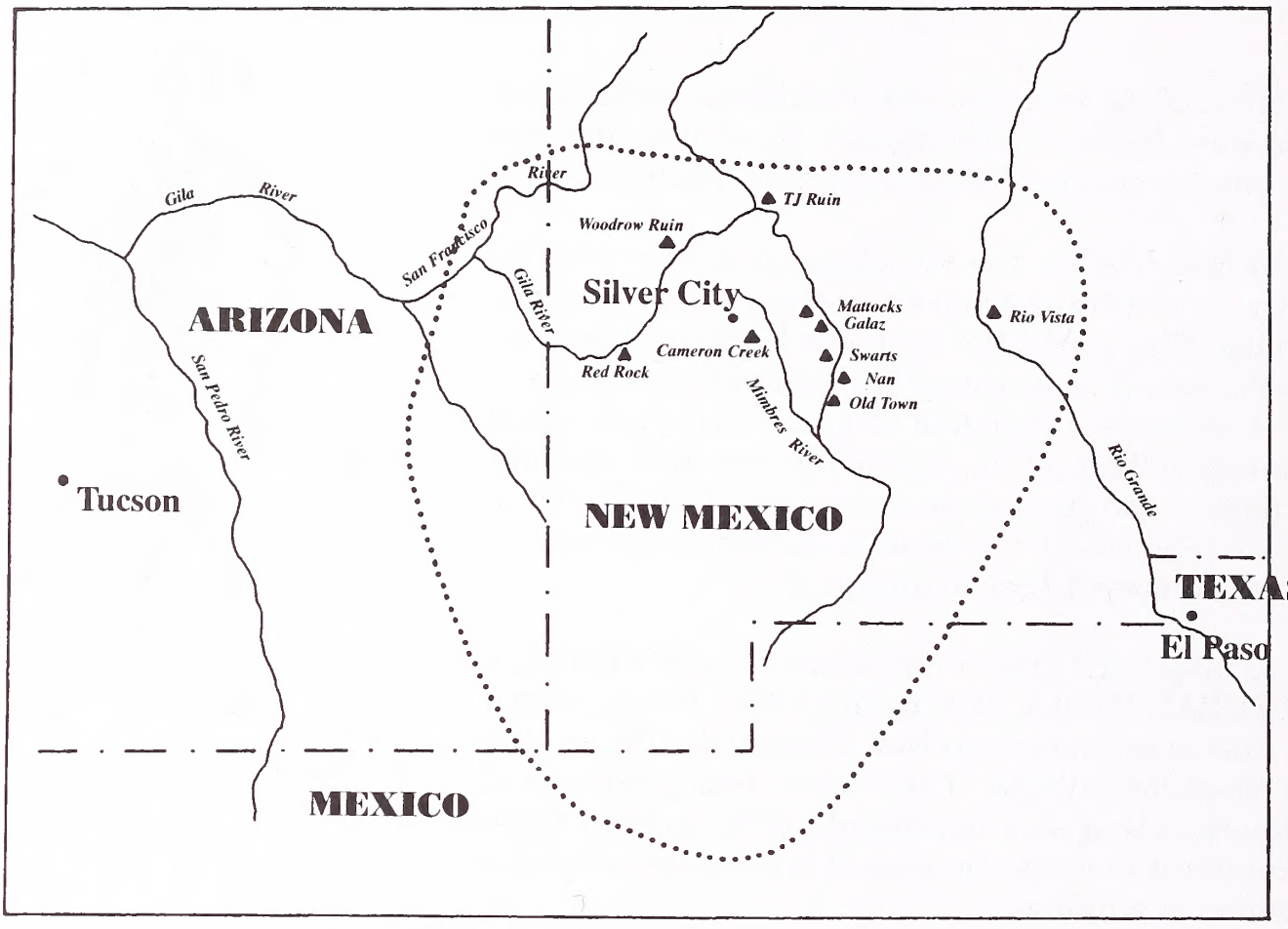
THE MOGOLLON CULTURAL SEQUENCE

Early Pit House Period
(A.D. 200–500)

Late Pit House Period
(A.D. 500–1000)

Pueblo Period
(A.D. 1000–1350)

The **Classic Mimbres Period** of southwest New Mexico (A.D. 1000–1150), is part of the Pueblo Period. It is best known for the production of beautiful Mimbres painted pottery.



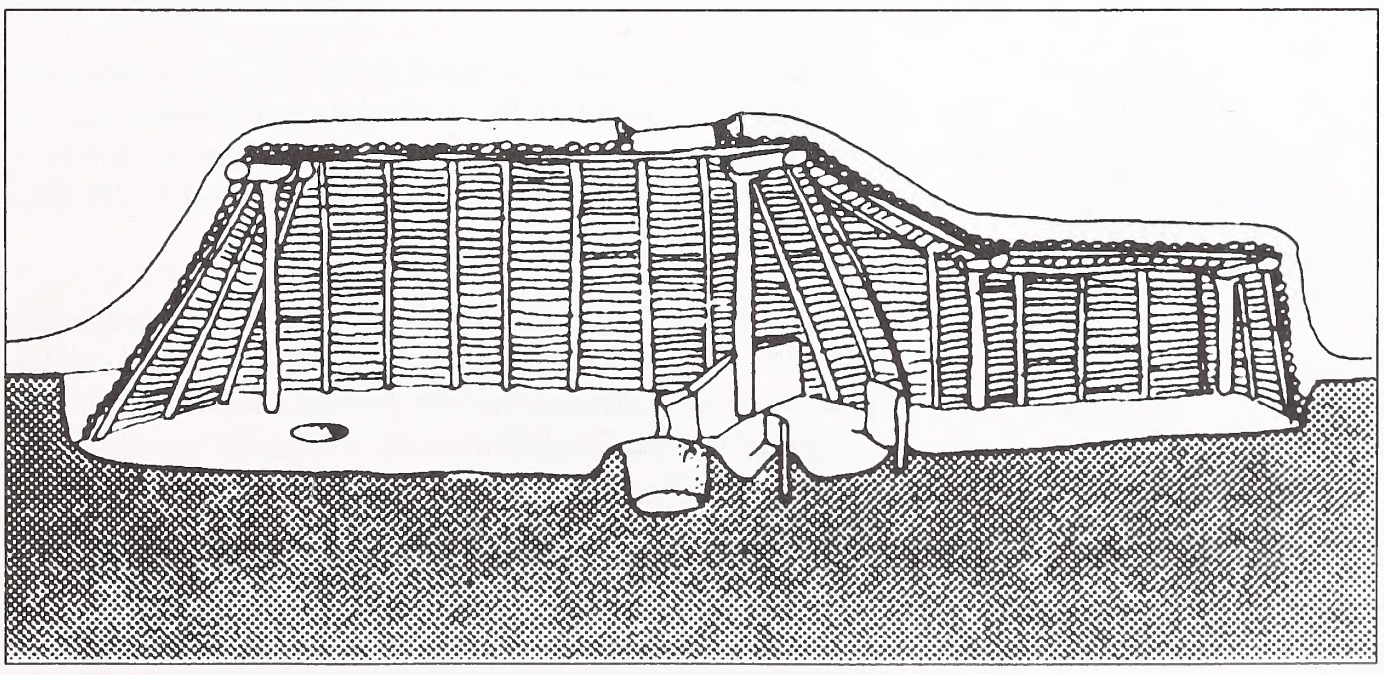
The Mimbres Region

Mogollon black-on-white pottery developed from the earlier brown ware. They do not see evidence of Anasazis coming into the area.

The Early Pit House Period (A.D. 200–500)

The Early Pit House period began with first evidence of pottery in the Mogollon area. The life-style of Early Pit House people differed little from that of the Archaic people. They lived largely by hunting and gathering. The Mogollon people located their pit house villages on knoll tops or mesa tops on high ridges. They were difficult to reach. Archaeologists think that perhaps the people were concerned about defense at that time.

Most PIT HOUSE villages were small, averaging about six pit structures. There were some sites with as many as 80. The people did not seem to have organized the pit structures in any fashion. They may not have used them all at the same time. In most Early Pit House villages, there was one pit structure that was much larger than the rest. The people probably used it as a community structure, like the Anasazi Great Kiva. Archaeologists also find this pattern in the Late Pit House Period.



Pit house, cut-a-way view. Mogollon pit houses were similar to Ancestral Pueblo pit houses.

Human hand print pictograph from the Mogollon Feather Cave site in south central New Mexico.

The Late Pit House Period A.D. 500–1000

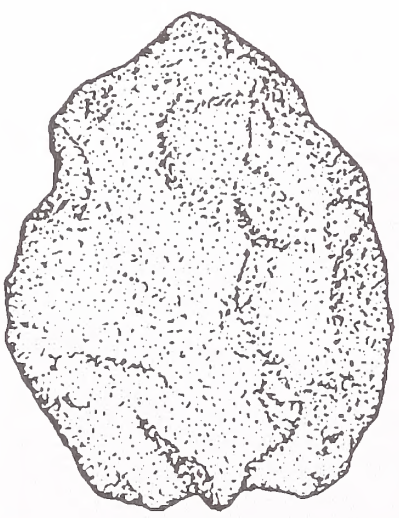
The Late Pit House period begins with evidence of the first decorated pottery. Pit house villages became much larger. They often had 100 pit structures. At least one of the pit houses was much larger than the others. Pit structures are deeper and more substantial in the Late Pit House period.

The Mogollon people now located their villages on terraces just above creeks. These were excellent places for agricultural production. We find animal and plant remains in sites. The evidence indicates that Late Pit House people still relied heavily on hunting and gathering. It was the basis for most of their subsistence.

The Harris Site

The Harris site is a Late Pit House period settlement located in the Mimbres Valley. It is one of the two sites Emil Haury used to define the Mogollon culture. The Mogollon people located the village on a gravel terrace just above the Mimbres River. Haury chose to dig it because the people lived there only during the Late Pit House period.

Haury dug 34 of the 100 Harris Site pit structures. Most were rectangular, 6 to 8 feet on each side and 5 to 6 feet deep. The large community structure at the site was also roughly rectangular. It was very large: 36 feet on each side and 6 feet deep.



Bifacial tool excavated from the Harris Site

Archaeologists think the Mogollon people occupied pit house villages during only part of the year. During certain seasons, site residents moved elsewhere to use wild plant and animal resources. Pit structures tend to decay rapidly, especially if abandoned for a time. Mogollon people probably built several new pit structures each time they returned to these settlements. The constant construction created the large pit house villages found by archaeologists.

The Mogollon people lived at a boundary between two environmental zones, the PINYON-JUNIPER and the desert. That meant that the wild resources available to the Mogollon people were abundant. As a result, the Mogollon supported their population primarily by hunting and gathering longer than did the Anasazi. The Ancestral Pueblos had access only to the resources of the Colorado Plateau pinyon-juniper environments.

About A.D. 1000 the Mogollon people began relying on agriculture. Some archaeologists believe that the Mogollon population eventually became too large. The available resources could no longer support it. The people had to cut back their pattern of seasonal movement. They settled in one spot, and began relying heavily on corn agriculture. The change occurred about A.D. 1000. It marks the beginning of the Mogollon Pueblo period.

Piñon tree. What type of food would it provide?

The Mogollon Pueblo Period A.D. 1000–1350

During the Pueblo period, the Mogollon built aboveground structures. Often they were directly on top of Late Pit House structures. This location provided access to permanent streams used to irrigate crops. Pueblo Period villages may have grown large because they needed many people. They needed people to construct and maintain irrigation systems. The switch from pit structures to aboveground structures allowed for storage of corn. Corn was then a basic source of food for the Mogollon people.

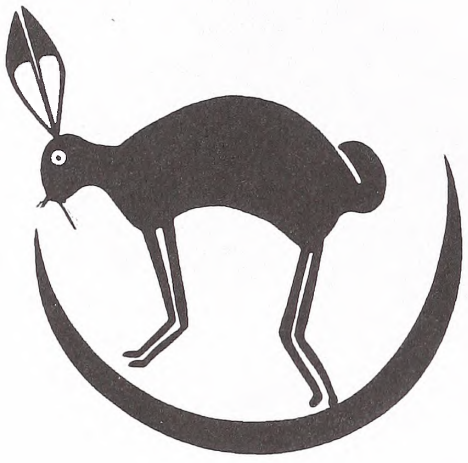
Juniper tree. What would it provide?

The Classic Mimbres Phase A.D. 1000–1150

The most famous part of the Mogollon Pueblo period is the Classic Mimbres Phase. The Mimbres Valley is located about 15 miles west of Silver City. It is the area best known during the Mogollon Pueblo Period. During the Classic Mimbres Period the Valley was home to as many as 5,000 people. They lived in 10 or more compact, pueblo-like villages. Each village may have housed as

many as 200 people. We also find Classic Mimbres villages in the Gila Valley to the northwest and the Rio Grande Valley to the east. The Great Houses of Chaco Canyon were the region's largest villages of their time. The Classic Mimbres pueblos were the next largest villages.

A number of masonry clusters of rooms, or **roomblocks,** scattered around a central plaza composed the classic Mimbres villages. The Mimbres did not have the beautiful layered sandstone available to Anasazi builders. They used river cobbles to construct their homes. The result was a rather crude construction. The buildings were no more than a single story high.



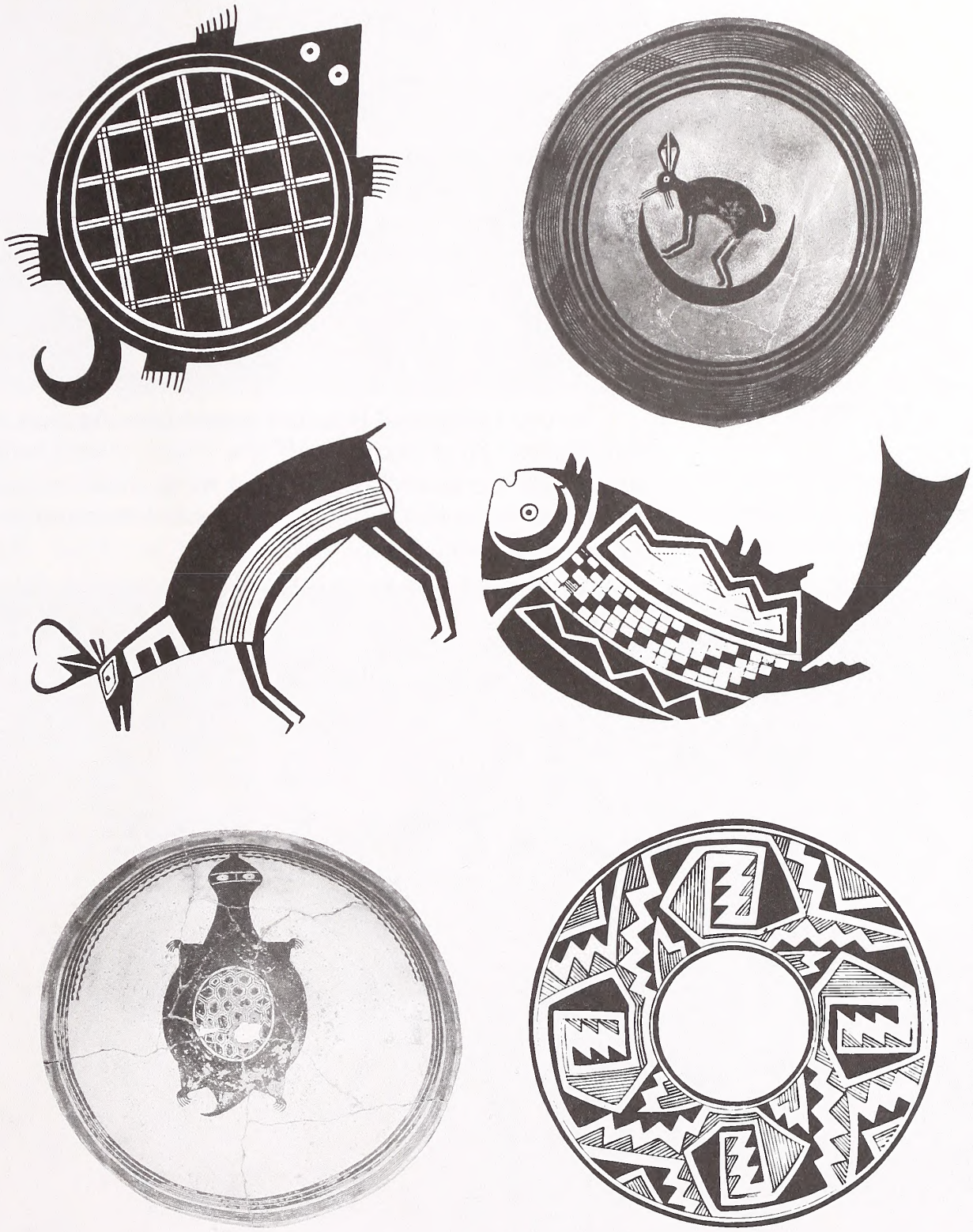
Mimbres Burials

Early archaeologists learned a great deal about the Mimbres period from studying graves. Unfortunately, their excavations lacked sensitivity toward Native Americans. Today, archaeologists consult with local Native Americans as soon as they discover a burial.

The Mimbres people may not have had the finest architecture. However, they more than made up for it in pottery production. Many people consider the Mimbres Black-on-White pottery the most beautiful and unusual decorated pottery in the Southwest. Its style and beauty have been both a boon and a disaster to archaeologists.

Mimbres pots are usually open bowls. They are about 10 inches in diameter, painted only on the interior. Archaeologists generally find the bowls with burials. Mimbres people usually buried their dead under the floors of rooms. They placed bowls over the heads. Many archaeologists believe the Mimbres people made a majority of the bowls specifically for BURIALS. The bowls very often have a hole punched out of the center of the bottom. Archaeologists often say that pots with these holes have been ritually "killed." Archaeologists interpret the hole as a "spirit hole." The Mimbres people may have believed allowed the spirit of the dead person to escape.

The DESIGNS on Mimbres pottery captured the attention of the modern world. The designs combine intricate geometric patterns with pictures of people, animals, mythical creatures, and scenes from daily life. From Mimbres pottery we learn much about the Mimbres people. We learn what Mimbres people wore, how they hunted, walked, danced, used tools, and even bore children. All occur in scenes painted on Mimbres bowls. For example, a researcher studied fish painted on Mimbres

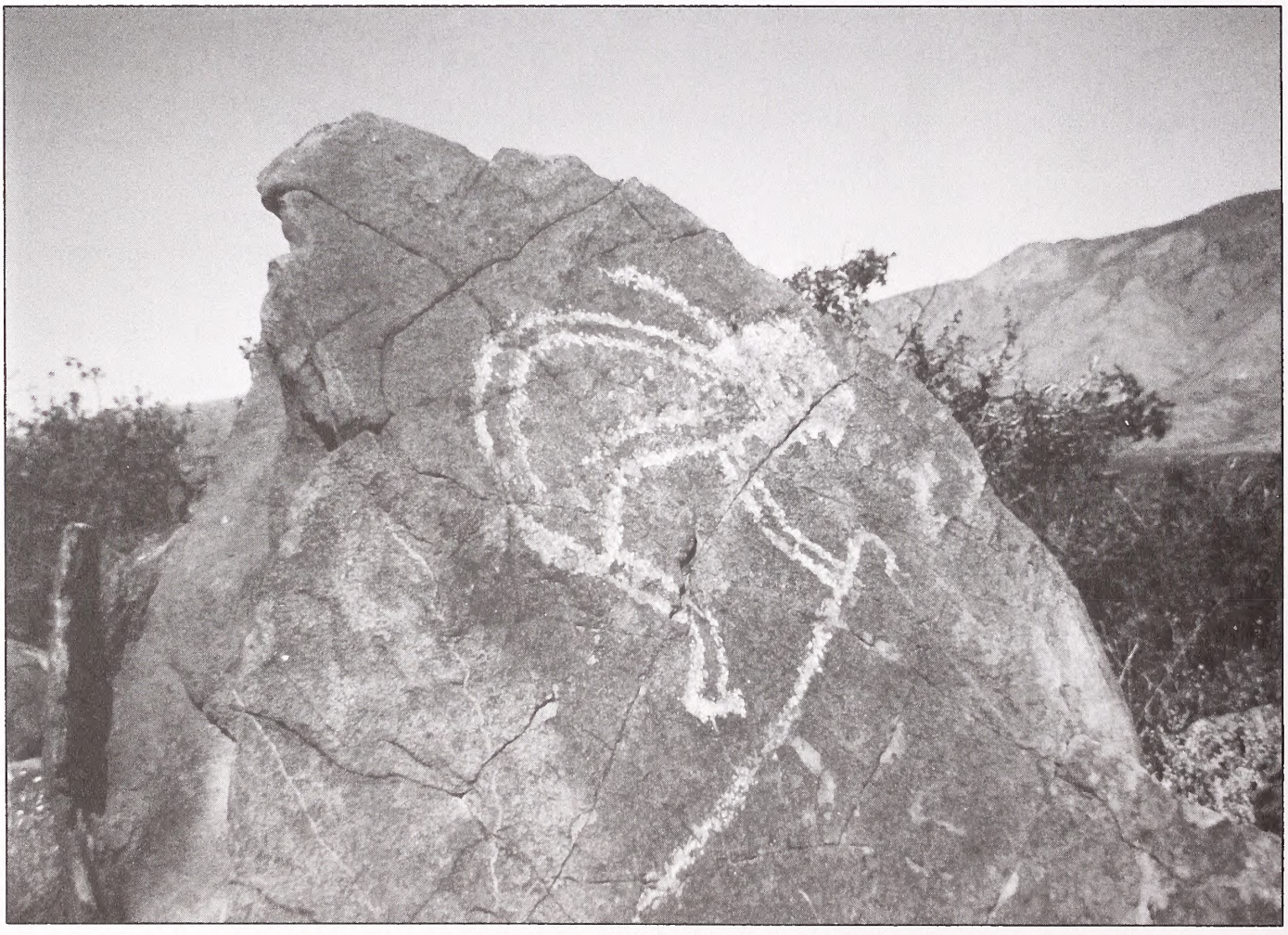


Mimbres Black-on-White
Pottery Designs

bowls. They were very realistic drawings of fish that inhabit the Gulf of California. The paintings even show their movements accurately. Perhaps the Mimbres people traveled to the Gulf and saw these fish firsthand.

The beautiful Mimbres pottery dazzled early archaeologists. However, they were unimpressed by the single story pueblos. As a result, there were few intensive studies of Mimbres culture until the 1970s. Instead, POT HUNTERS dug the sites for treasure, or **looted** them. They sold the bowls they found for large amounts of money. Early pot hunters used picks and shovels to search for pots. They damaged but did not destroy Mimbres sites.

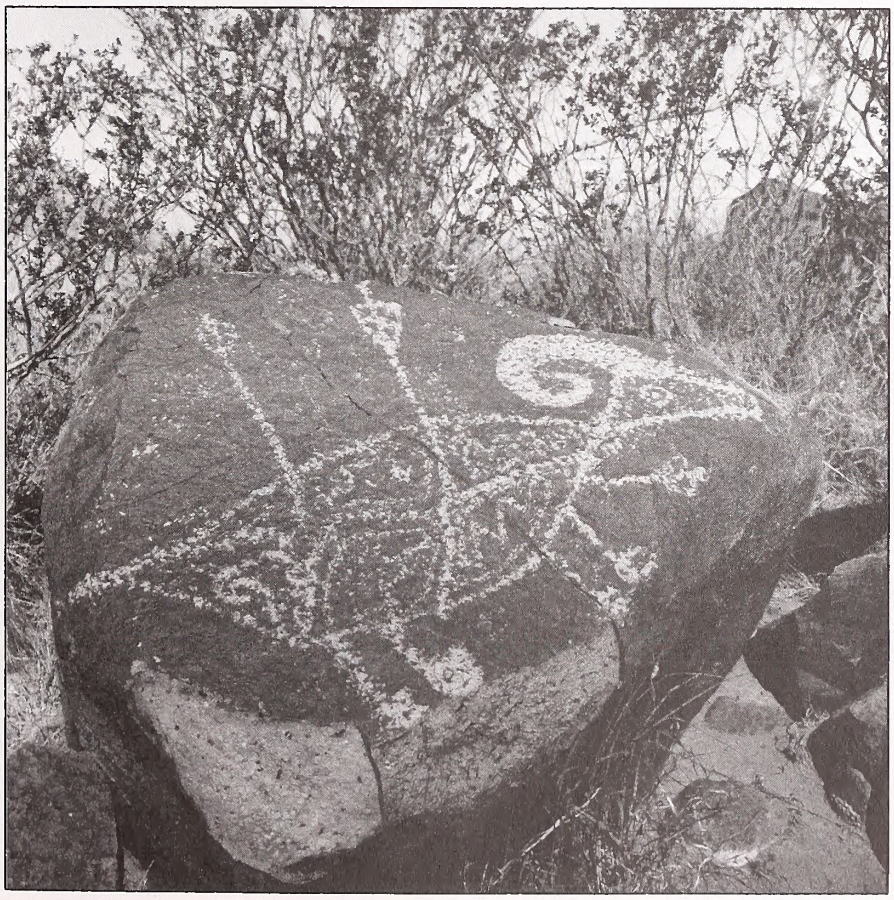
In the 1960s, pot hunters began to mine sites with bulldozers. They scraped off the entire roomblocks to reach the burials. The burials, with their treasured bowls, were in their resting places below room floors.



Mimbres rock art near Pony Hills, New Mexico

Mimbres rock art near Three Rivers, New Mexico

There are now many bulldozed sites in the Mimbres area. They are completely lost to science. They can provide no more information about the fascinating Mimbres culture. Both pot hunters and private collectors see Mimbres pottery only as art objects. They do not



Jornada Mogollon rock art near Three Rivers, New Mexico

What can we do about POT HUNTERS

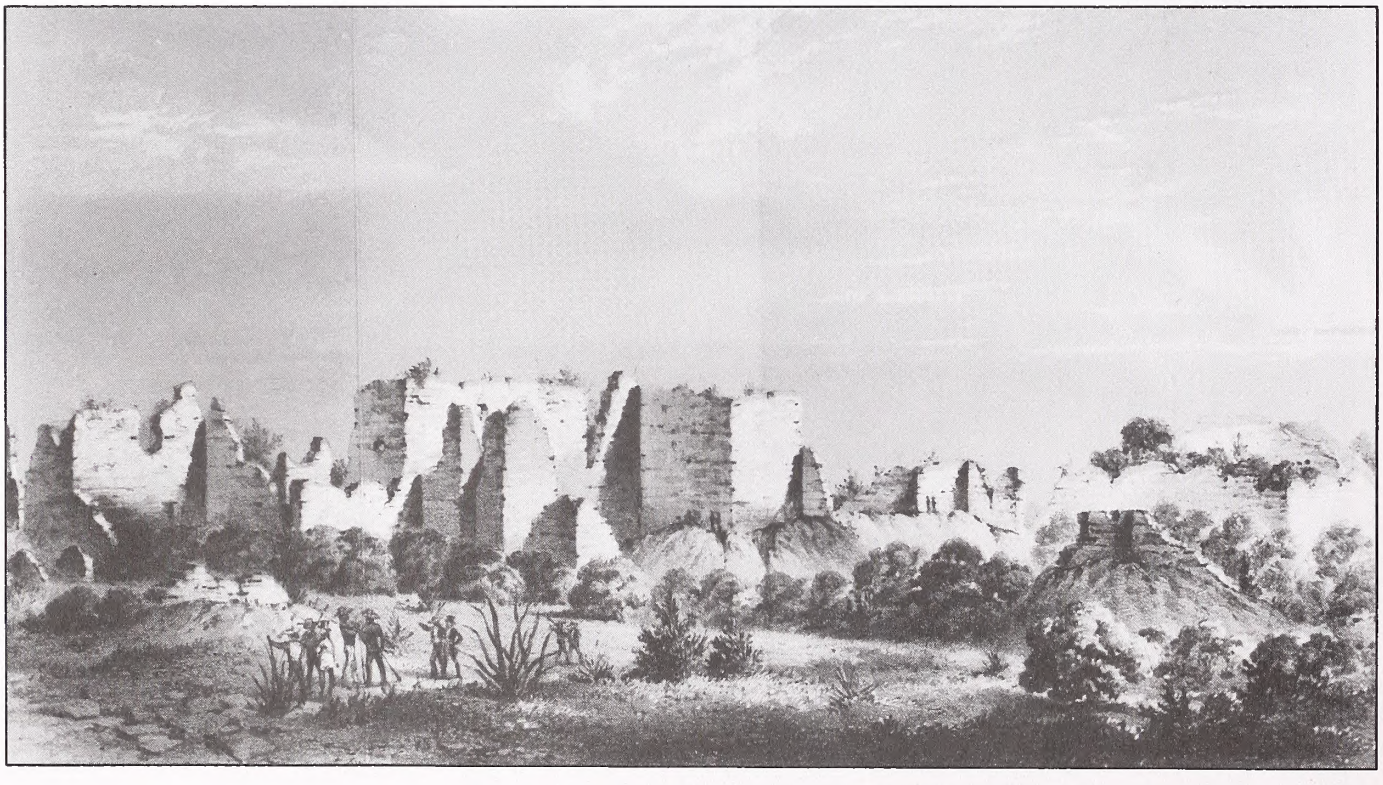
Pot hunters dig up artifacts everyday in the United States. It is illegal to do this on all U.S. government lands. Once anyone, even an archaeologist, digs up a site, it can't be replaced. Responsible archaeologists keep records of everything they dig, but pot hunters don't. We lose information that belongs to all of us every time they loot a site. *What can we do about pot hunters?*

see it as clues to the past. They have almost destroyed what remains of that remarkable culture.

The Classic Mimbres period ended abruptly in A.D. 1150. That was about the same time that the Chaco Phenomenon came to an end. Some archaeologists have tried to connect the two events. Recently, archaeologists recognized that the Classic Mimbres period may not have ended. It simply may have changed. After A.D. 1150, people were still building large desert villages. They built these villages at the fringes of the traditional Mimbres culture area. Pottery styles changed, but there was not necessarily a large population decline. About A.D. 1350 the people seem to have abandoned the entire region. At that time the settlement of Casas Grandes was at its peak in size.

Casas Grandes

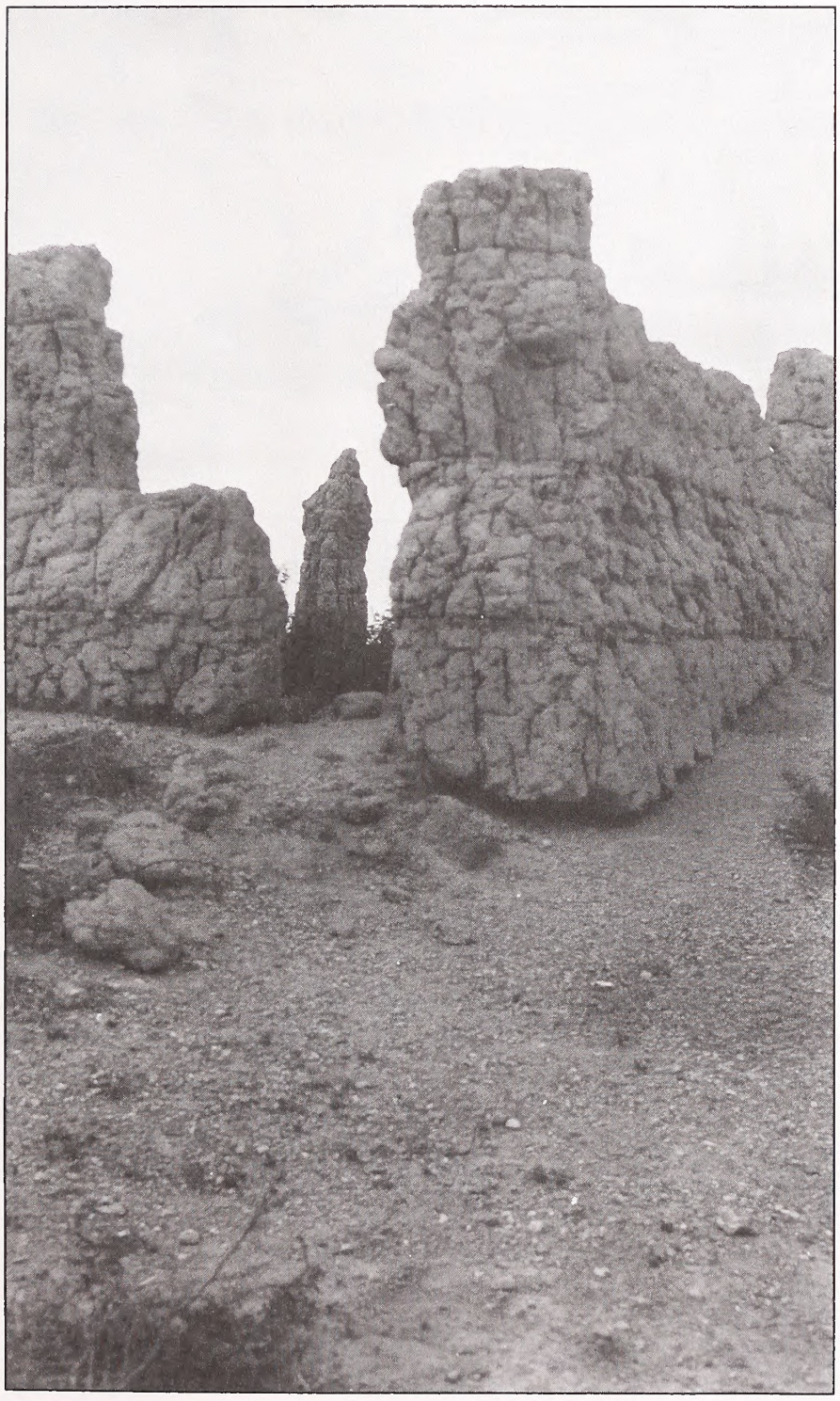
CASAS GRANDES was an enormous town about 200 miles south of the Mimbres area. It is in what is now northern Mexico. Some archaeologists suggest that the end of the Classic Mimbres was connected with the



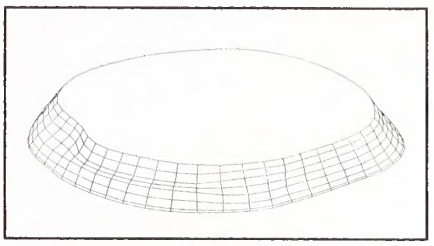
Painting entitled "Ruins at Casas Grandes, Chihuahua, Mexico" from about 1854

growth of Casas Grandes. Mimbres people may have abandoned their homeland for the attractions of that big city.

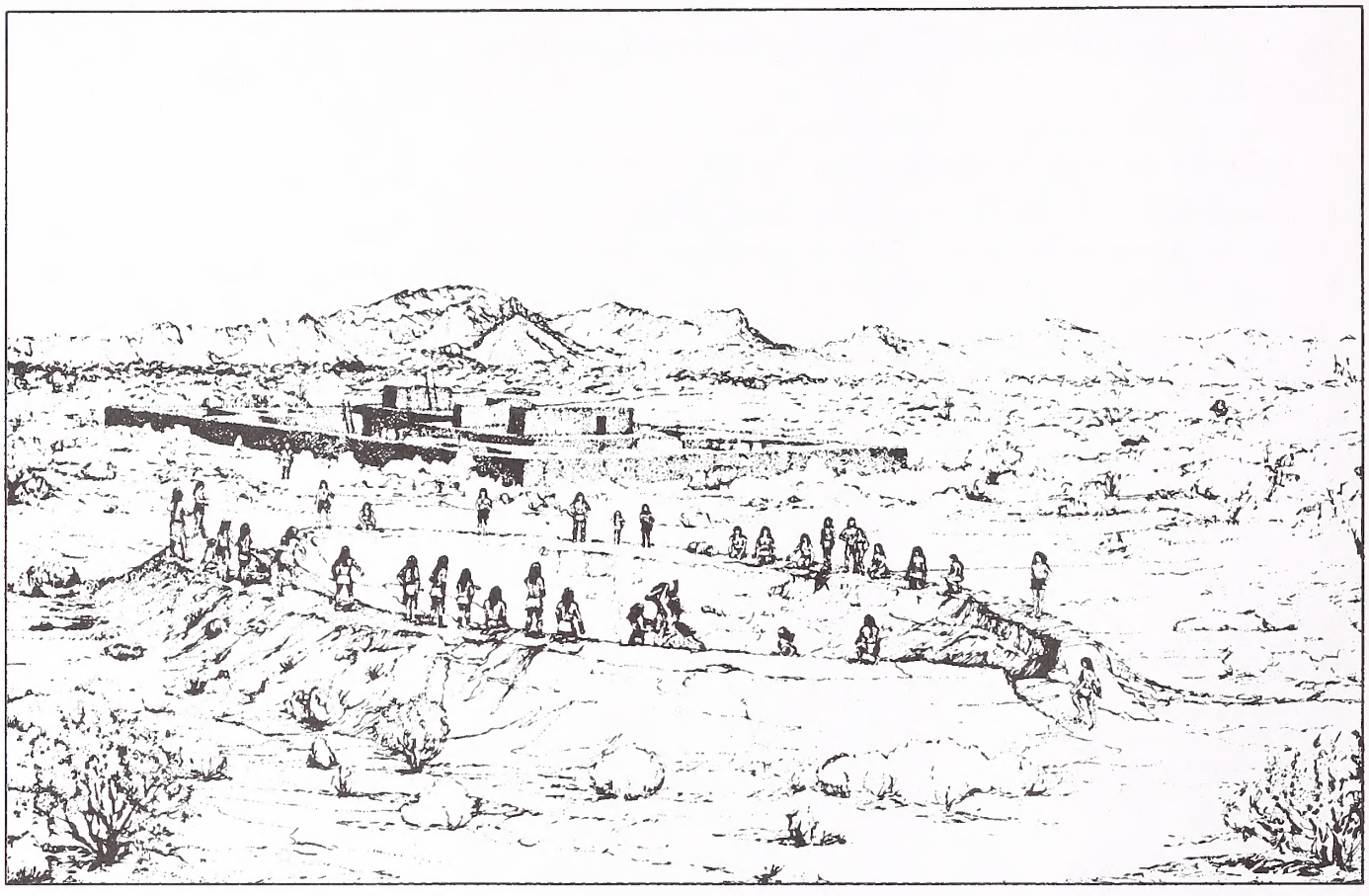
Casas Grandes is located in the Mexican state of Chihuahua. It is about 60 miles south of the town of Columbus, New Mexico. Casas Grandes was a huge pueblo built from bricks of dried clay called **adobe.** It



Ruins today at Casas Grandes, Chihuahua, Mexico



Platform mound. This was a large, flat earthen mound, similar to those found in Mexico. What do you think it was used for?



Ancient ball court drawing from the ruins at Casa Grande Ruins National Monument near Coolidge, Arizona.

had an amazing variety of large flat earthen mounds, called PLATFORM MOUNDS, and BALL COURTS. These were like those of central Mexico. It probably was the largest settlement in the Southwest during the late 1300s.

Casas Grandes heavily influenced the villages of south-central New Mexico. In extreme southwestern New Mexico there are large adobe pueblos in the Animas area of southern Hidalgo County. They look much like Casas Grandes. Archaeologists believe they were either satellites or frontiers of that great center. People abandoned the Animas sites in the mid 1400s. That was at the same time Casas Grandes ended.

Word List

adobe (uh-DOH-bee) Bricks made out of a sandy kind of clay and sometimes dried grass. The adobe bricks are dried in the sun and used to make homes and buildings.

loot (LUTE) To dig up a site in order to find artifacts to sell.

roomblock (RUME-blok) Clusters of rooms that shared walls.

7 The Spanish *Entrada* and the Early Spanish Colonial Period

(A.D. 1540–1700)

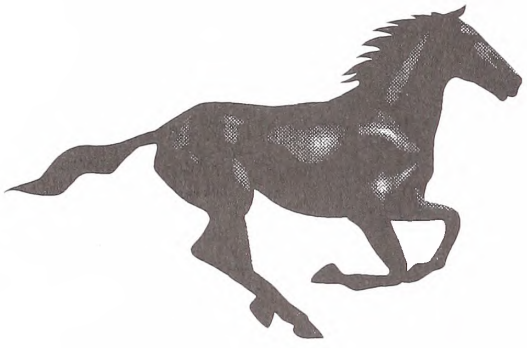
In 1528, a Spanish exploring ship wrecked on the coast near Galveston, Texas. It was the last of a group of ships. The four survivors had an amazing adventure. They were a Spaniard named Alvar Nuñez Cabeza de Vaca, a black slave named Estéban, and two soldiers. Local Indian groups held this small group of Europeans captive for a long time.

Coronado's Expedition to New Mexico. Painting by Gerald Cassidy.

The signature of Francisco Vazquez de Coronado

Later the the survivors spent several years walking across part of North America. They went through what is now Texas, and New Mexico. Finally they reached Spanish-occupied Mexico. Along the way, the survivors talked with many Indian groups. They heard stories of "golden cities" to the north. They thought these must be the legendary Spanish "Seven Cities of Cíbola." By that time, Spanish explorers had conquered Mexico and Peru. They had found a fortune in gold. The news of more gold in the north greatly excited them.

In 1539, the Spanish rulers in New Spain (Mexico) sent an expedition north to find the Seven Cities of Cíbola. Fray Marcos de Niza led the expedition. One of the survivors, Estéban, guided the party. Fray Marcos's party reached what they thought was the Seven Cities. It was actually the Zuni village of Hawikuh. Estéban entered HAWIKUH first and was killed by Zunis. Apparently Fray Marcos was either a timid man or smart. He halted on a hill outside the village and claimed the region for the King of Spain. Then he quickly retreated home. Back in Mexico he told fantastic tales of cities paved with gold. He did not want to disappoint the rulers who had sent him on the expedition.



WHERE DO THE WILD HORSES COME FROM?

Several horses that escaped from Coronado's expedition began the wild horse population that still exists in the U.S. today. Native American people tamed some of these wild horses. Their only previous form of transportation had been by foot.

Today the U.S. Bureau of Land Management has a wild horse and burro program. They round up some of the wild horses and burro so there won't be too many to survive. People adopt and tame these wild horses. That way the rest can survive.

On the basis of Fray Marcos's reports, the Spanish outfitted another expedition in 1540. FRANCISCO VASQUEZ DE CORONADO led it. His party included 300 soldiers, 1,000 HORSES, and 6 priests. They were to begin missionary work. Coronado's assignment was to conquer the Seven Cities of Cíbola and any other kingdoms he might encounter. He was very disappointed when he reached Zuni and found no gold. He battled with the Zuni people and captured Hawikuh.

Coronado moved on to the Rio Grande to look for gold. He came upon the province called Tiguex. It was a series of Pueblo villages north of modern-day Albuquerque. The people spoke the Tewa language. Again, there was no gold. By that time, winter had arrived. Coronado made the village of Kuaua his headquarters. He demanded food and blankets from the Indians. When they resisted, he attacked them. He killed many of the Tewa. Many others abandoned their villages and fled. Coronado eventually returned to New Spain. He had sad news that there was no treasure in these northern provinces.

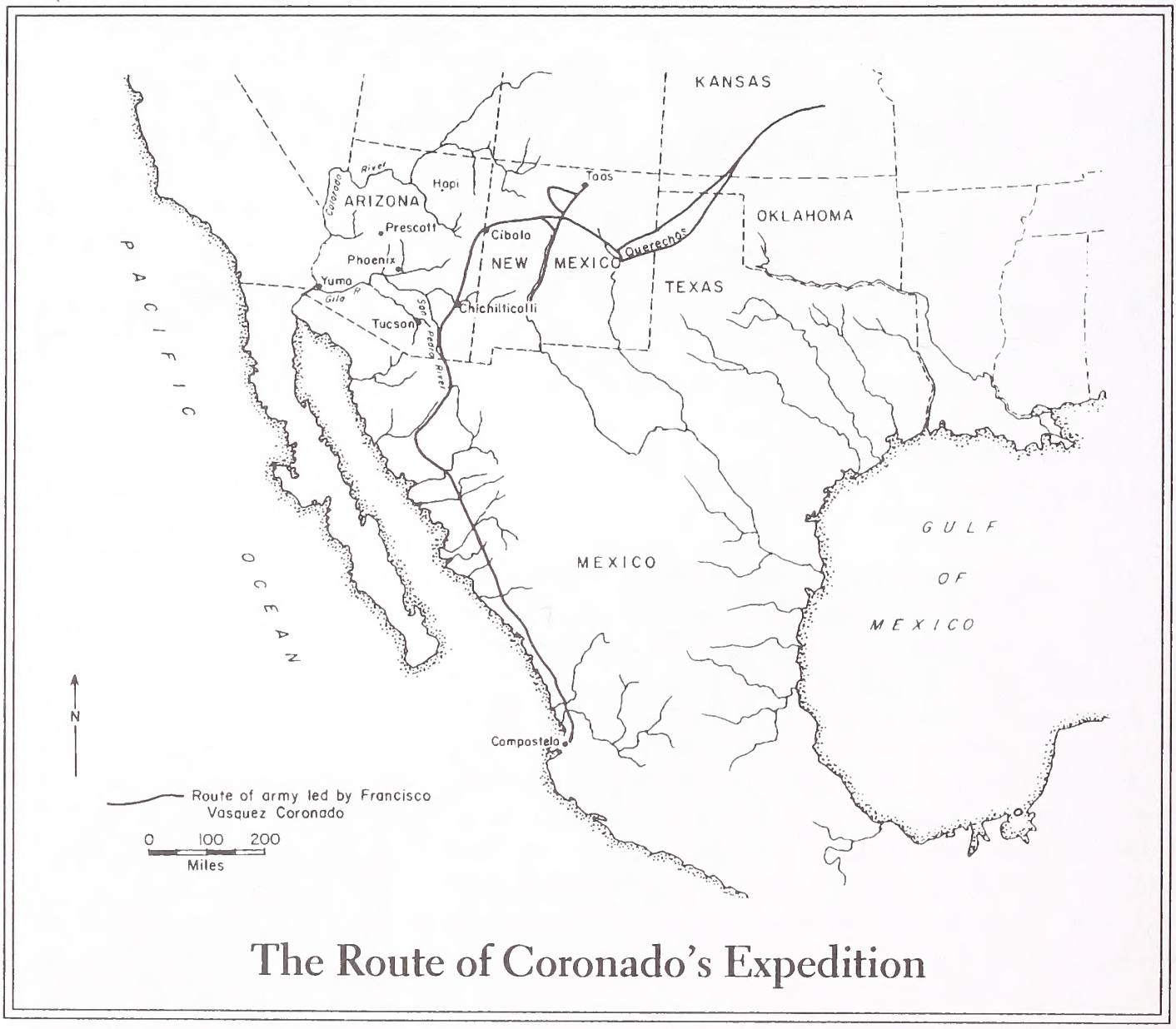
The Battle of Hawikuh—July 6, 1540. Coronado's men captured Hawikuh.

Permanent Spanish Settlements

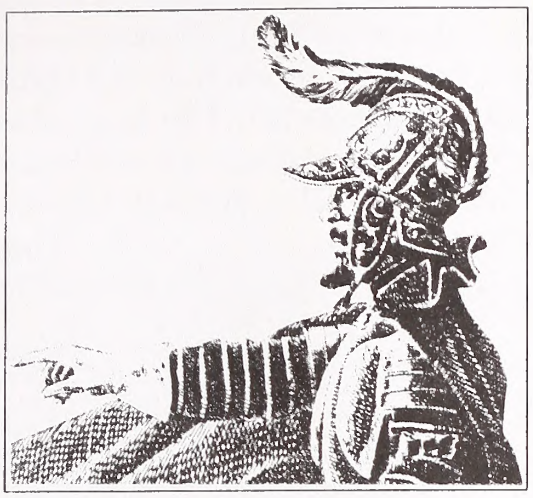
Coronado's expedition marked the Spanish entrance or *entrada* into New Mexico. No other Spanish explorers entered the Southwest for 40 years. Each new contact resulted in conflict between the Spanish and Indians. There was no treasure to take in the Southwest. However, the Spanish had a strong desire to make the Indian populations become Christians. Juan de Oñate led the first major missionary expedition into New Mexico in 1598. He brought colonists, priests, soldiers, and servants. The settlers took up residence among the Tewa at San Juan Pueblo. The priests began their missionary work at the surrounding Pueblo villages.

The Spanish relied on the Indians for their subsistence. Supplies came slowly from Mexico City on "the royal road," *EL CAMINO REAL*. They demanded food, clothing, and other necessities. It left the people without enough things for their own survival. When the Indians resisted, the Spanish severely punished them. The Spanish quickly put down a revolt at the village of Acoma to the west, Oñate had the village destroyed. He made slaves of more than 500 of its residents.

Aerial view of the modern day remains of El Camino Real. The "Royal Road" was used by Spanish settlers of New Mexico. It led from Santa Fe to Mexico City, 1554 miles to the south.



The Route of Coronado's Expedition



Coronado

Francisco Vasquez de Coronado was a Spanish explorer who spent two years exploring the American Southwest. When he came to Mexico in A.D. 1535, he worked for the first Spanish viceroy in Mexico. Three years later, in A.D. 1538, Coronado became governor of the northwestern Mexican province of *Nueva Galicia*. As governor, he learned about the legends of the *Seven Cities of Cíbola*. For two years he dreamed of finding great wealth in gold and jewels in the great cities. Finally, Coronado began the search for his dream.

In April, A.D. 1540, Coronado left Compostela in northwestern Mexico with a large expedition to find the legendary cities of *Cíbola*. His expedition traveled north through what is now Sonora, Mexico, and southeastern Arizona. When they reached what is now Arizona and New Mexico, Coronado attempted to enter the Zuni village of Hawikuh. The Zuni resisted Coronado and his expedition, so Coronado took Hawikuh by force. During his explorations, Coronado and his men met many different groups of people—including Hopis, Zunis, Apaches, Wichitas, and Pawnees. They found no gold or jewels. Coronado didn't give up hope in finding wealth and *Cíbola*. He continued west and explored the Hopi pueblos. He continued eastward and reached the Acoma Pueblo and Rio Grande pueblos.

He and his men were the first Europeans to learn about the Grand Canyon. They crossed the Pecos River into what is now Texas and Oklahoma. They were among the first Europeans to observe people hunting buffalo on the Great Plains. Coronado's expedition traveled as far east as what is now Kansas. After almost two years of searching for wealth and riches, Coronado and his men finally became discouraged and returned to Mexico. After he returned to Mexico, Coronado lived the last of his life as a minor colonial official in Mexico. He died around the age of 44 in Mexico. Even though Coronado didn't find what he was looking for, his explorations provided the Spanish with knowledge. He provided knowledge of the geography and native peoples of the Southwest. Before Coronado, most of the history and description of the area was not written down. He is important in history because of his contacts, explorations, and written descriptions of what he and his men found. After his expedition, life in the American Southwest was never the same. More Europeans and Mexicans followed Coronado's explorations.

Throughout the 1600s, the Pueblo Indians of the Rio Grande were virtual slaves to Spanish priests and colonists. The Catholic Church in Spain held that once the Indians were Christians, they should be treated as equals. However, the priests and colonists in New Mexico treated the Indians differently. The Spanish became very wealthy at the expense of the Native people. They had no intention of changing their ways. They lived like kings.

Spanish priests were especially alert to punish the Indians for practicing their native religion. During that period the Pueblo Indians had to become secretive about their religious rites. They continue the practice in modern times. The Pueblo religious beliefs were very strong. It is a tribute to them that so much of the traditional religion survived to the present day.

Hawikuh Ruins as they appeared when excavated in 1925. The Zuni left Hawikuh after 1692. (Photo by Edward S. Curtis)

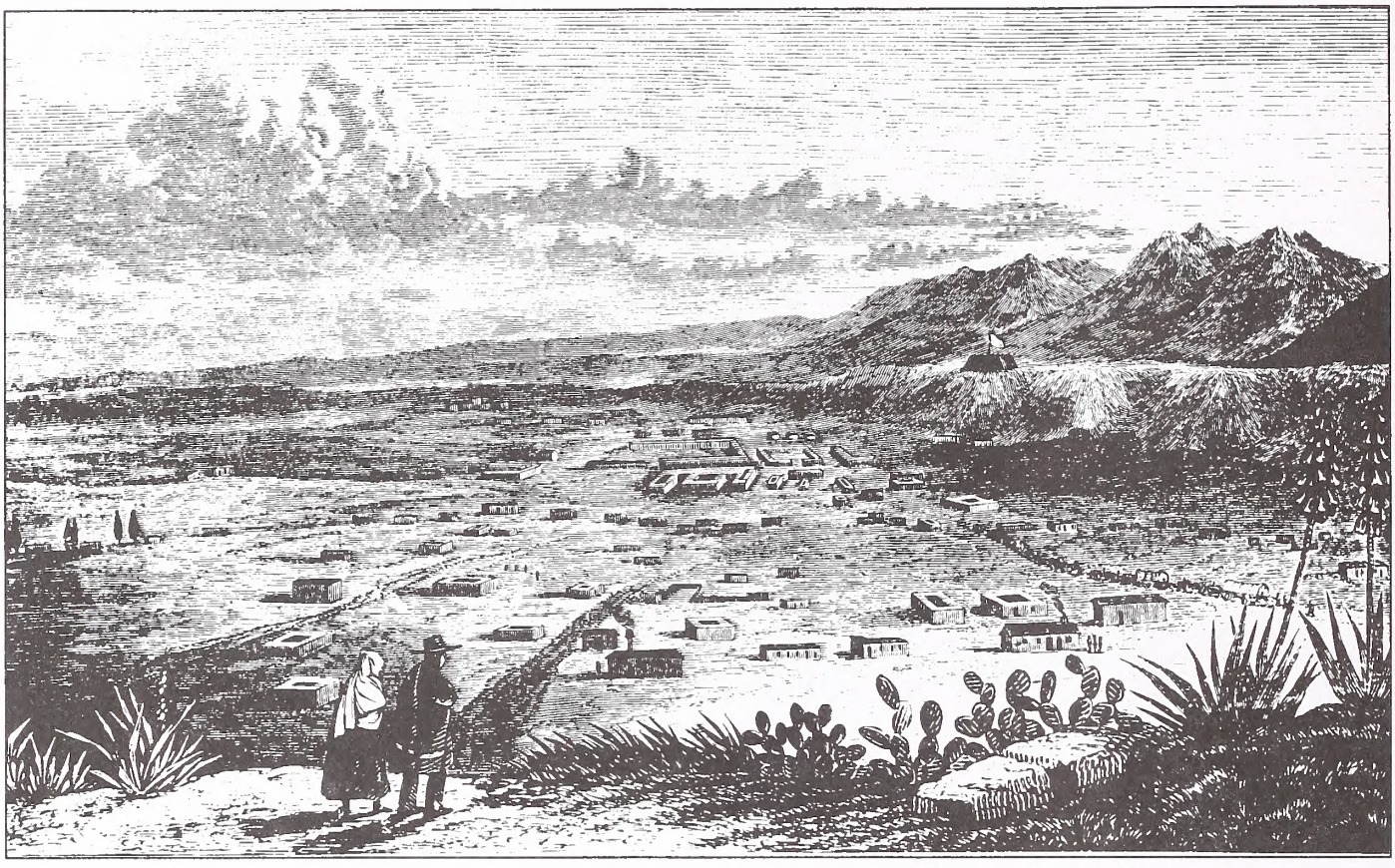
Zuni Pueblo as it appears today. It is the original village of Halona:wa. Other Zunis moved there after the return of the Spanish in 1692.

The Pueblo Revolt

By 1680, the Pueblo Indians had enough of Spanish rule and revolted. The revolt extended throughout the Rio Grande region and west to Hopi in northeastern Arizona. The coordination of the revolt was remarkable. The Pueblos spoke a variety of different languages. There was no political organization that united them. The non-Indian population of the region was less than 3,000 people. Four hundred of these died in the first days of the revolt. Many of the remaining Spanish were blocked off from food and suppies, or under **siege,** in SANTA FE for nine days. Then the Pueblos allowed them to retreat south to El Paso.

For 12 years, the Pueblo people were once again independent. Then, in 1692, DIEGO DE VARGAS led a reconquest. Fortunately, after the reconquest, the Spanish changed many of the abuses of the early colonial period. Relations between Spanish colonists and Pueblo people became more equal. Peace was gained at great cost. The Pueblos lost many people and much territory during the revolt and reconquest.

Don José Diego de Vargas Zapata y Lujan (1643-1704)



Santa Fe, New Mexico, from an engraving dated 1851.

Disease

Another source of population loss was disease brought by the European invaders. Since the earliest European contact, the Native American populations everywhere had suffered **epidemic** diseases. An epidemic is a time when large numbers of people have the same disease, which spreads rapidly. Diseases common in Europe, such as measles and smallpox, were unknown in the Americas. After the Europeans came, the diseases killed enormous numbers of Native Americans. Periodic epidemics reduced Native American populations in New Mexico. That occurred especially during the first few centuries after the conquest.

How Archaeologists Use Spanish Accounts to Figure Out Earlier Pueblo Cultures

The year 1540 marks the end of the **PREHISTORIC** period in New Mexico and the beginning of the

HISTORIC period. Spanish journals provide the first glimpse of Pueblo society. Archaeologists use the early explorers' accounts when they try to figure out the prehistoric period. These sources make up a study that archaeologists call **ethnohistory**.

Archaeologists search ethnohistoric accounts to find clues about the early cultures. They look for everything from family size to the use of building features. They use the information they gather to try to figure out the more distant past. Even artifacts found in archaeological sites can be compared with early reports. The ethnohistoric reports tell about the Pueblo's use of tools and containers.

Ethnohistory is one of the best sources of information available for figuring out prehistoric Pueblo culture. However, archaeologists are becoming increasingly cautious about its use. They must first assume that ethnohistoric accounts were an accurate picture of Pueblo society. This may be more than we should assume. The Spanish people wrote their accounts from their own point of view.

It is not clear how far into the past we can extend the picture. For example, to the Spanish, Pueblo villages seemed very *egalitarian*. In other words, the religious and nonreligious leaders did not maintain a tight control over the people. Individuals were free to disagree with the suggestions of leaders. They could leave a village if they disagreed too much. Early archaeologists thought earlier prehistoric political organization was similar.

Can we assume things were the same 400 years before the Spanish arrived? Was the Chaco system organized with the same egalitarian structure found by the Spanish in historic Pueblos? Or was there a much tighter control by Chacoan leaders? Did the leaders force their subjects to construct and maintain elaborate Great Houses and road systems?

PREHISTORY and PRECONTACT
(pre-HISS-tuh-ree) (pre-KON-takt)
The story of the time before there were written records or before the Europeans came and wrote about the people and events in America is called prehistory. Prehistory can also mean the study of prehistoric people or those existing in times before written history.

Since many native people have oral histories about their lives before the Europeans came to America, Some scientists and historians use the term "precontact" meaning the time before contact between Europeans and the Americas instead of "prehistory."

HISTORY and POSTCONTACT
(HISS-tuh-ree) (post-KON-takt)
A written story or record of what happened in the past. History follows the time we call "prehistory." These written descriptions often explain why the events happened from the viewpoint of the author, who is often a man. Some people think history—"his story"— should also be herstory—"her story"—to tell the story of women throughout time.

Many scientists and historians call the period of time after the first contact between the two worlds, "postcontact" rather than using the term "history."

Word List

epidemic (ep-ih-DEM-ick) A time when large numbers of people have the same disease.

ethnohistory (eth-no-HIS-to-ree) The study of the history of a native people.

history (HIS-to-ree) A written story or record of what happened in the past. In the Americas there were records written by the first Europeans who came and wrote about the people and events they saw. The period of history follows the time we call "prehistory." History can also be a tale, story, or a written description of events. These written descriptions often explain why the events happened from the viewpoint of the author.

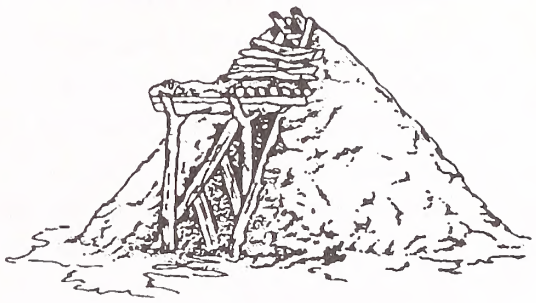
prehistory pree-HIS-to-ree) The time before there were written records or before the Europeans came and wrote about the people and events in America is called prehistory. Prehistory can also mean the study of prehistoric man or existing in times before written history.

siege (SEEGE) One group surrounds or blocks off a village or position of another group in order to cut off food, water, and supplies in order to force a surrender.

8 The Athapaskan Peoples

(A.D. 1000–1500)

Not all of New Mexico's Native Americans are pueblo people. The Navajo and Apaches are *Athapaskan* (ath-uh-PAS-kan). Scientists believe that between A.D. 1000 and 1500, Athapaskan peoples began to migrate. They went to the Southwestern United States from Northern Canada. There are Athapaskan people there who spoke a language similar to the Navajo and Apache languages. Many Athapaskan people do not agree that their ancestors came from northern Canada because they have no traditional stories about Canada. Instead they believe they came from northern New Mexico.



This early Navajo forked stick hogan provided shelter.

The Athapaskans were unlike the Pueblo people of New Mexico, who had become settled farmers. The Athapaskans were hunter-gatherers who moved from

A hogan made from wood. The traditional Navajo home always had a door facing east.

Shopping in nature's supermarket
THE SEASONAL ROUND
Hunter-gatherers know the area they live in as well as you know your neighborhood supermarket. They know where to find every kind of food. They know the best time to get it. Usually they live in one area and move from camp to camp. They return to the same camps every year at the same time. We call that their seasonal round.

place to place. Archaeologists don't know why they migrated from the north. Perhaps their population was expanding. The sparse resources of the forested northern regions could no longer support the population. In the Southwest, there was room for hunter-gatherers. The Pueblo people had come to rely on farming for the majority of their subsistence. Because they were hunter-gatherers, the Athapaskans used large territories during their seasonal search for food. Their territories almost entirely surrounded that of their Pueblo neighbors.

These Athapaskans are now the Navajo and Apache people. They reside on reservations in northwestern and south-central New Mexico. Pueblo people had abandoned both areas earlier. When they first arrived in the Southwest, the Athapaskan people lived in small family groups. Most of their subsistence was wild plants and animals. They traveled over hundreds of miles in search of food in what is called a **SEASONAL ROUND**.

Rock art in the Gobernador style. This panel is from the Dinetah, the traditional homeland of the Navajo.

The Apache

The Apache of New Mexico formed three groups: the *Jicarilla* (HICK-uh-REE-uh), the *Mescalero* (mes-kuh-LAIR-oh), and the *Chiricahua* (CHEER-i-CAW-wuh). The Jicarilla Apache once claimed the northeastern quarter of New Mexico. They camped and hunted along the Rio Grande near Santa Fe. Today their reservation is in the north central part of the state around the village of Dulce. The Mescalero Apache once claimed most of southeastern New Mexico. Today their reservation is in south-central New Mexico just south of Ruidoso. The Chiricahua Apache claimed the southwest quarter of the state. They were never successful in gaining a reservation. The government forcibly took many Chiricahuas to Oklahoma where some still reside today. Many returned to New Mexico to live with the Western Mescalero Apache.

The Navajo

The traditional Navajo homeland is the *Dinetah* (DIN-aa-tah). It is the area around the San Juan River valley above present day Farmington. Today, the Navajo reservation covers a wide area. It is in northeastern Arizona, the northwestern corner of New Mexico, and the southeastern corner of Utah. The Navajo participated in the Pueblo Revolt of 1680. During the Spanish re-conquest of the area they sheltered fugitive Pueblo Indians in the Dinetah. Navajo contacts with Pueblo groups had important, permanent effects on their culture. Most important were the introduction of sheep and goat herding and corn farming. These soon became the basis of their subsistence in the old Anasazi area.

Athapaskan Relations with Outsiders

The Apache continued to be hunter-gatherers, although they grew a little corn. They relied on wild sources of food. Therefore, their seasonal round still covered a vast area. For both the Mescalero and the Chiricahua Apache, the southern part of their range was in the mountains of northern Mexico. Both Navajos and Apaches raided settled Spanish or Pueblo villages. The raids became an additional means of subsistence for them, especially for the Apache. In turn, the Spanish and Mexicans attacked Apache and Navajo people.

Two Navajo women in traditional dress pose near a hogan door near Cornfield Wash, New Mexico.

They all took captives and often sold the captives, especially women and children, as slaves.

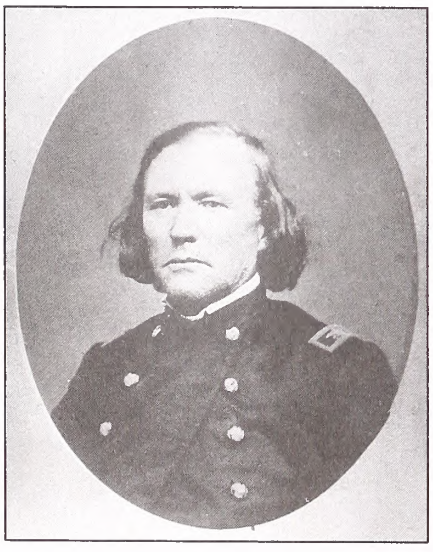
The Treaty of *Guadeloupe-Hidalgo* in 1848 ended the Mexican-American War. It brought Navajo and Apache homelands under the control of the United States government. Non-Indians began competing with the Navajo and Apache for limited rangelands and other resources. In quarrels, the Navajo and Apache were generally the losers.

Renaming WASHINGTON PASS NARBONA PASS

Washington Pass, in the Chuska Mountains of northwestern New Mexico, was named for Colonel Washington. The Navajo changed the name to Narbona Pass because of the Narbona incident.

In 1849, some men shot Navajo chief *NARBONA* in the back after a dispute over a horse. The men were under the command of Colonel John WASHINGTON. That incident set the tone for relations between the two groups for the next two decades. In 1858, a Navajo shot the servant of a U.S. Army Captain. The Army then declared war on the Navajo.

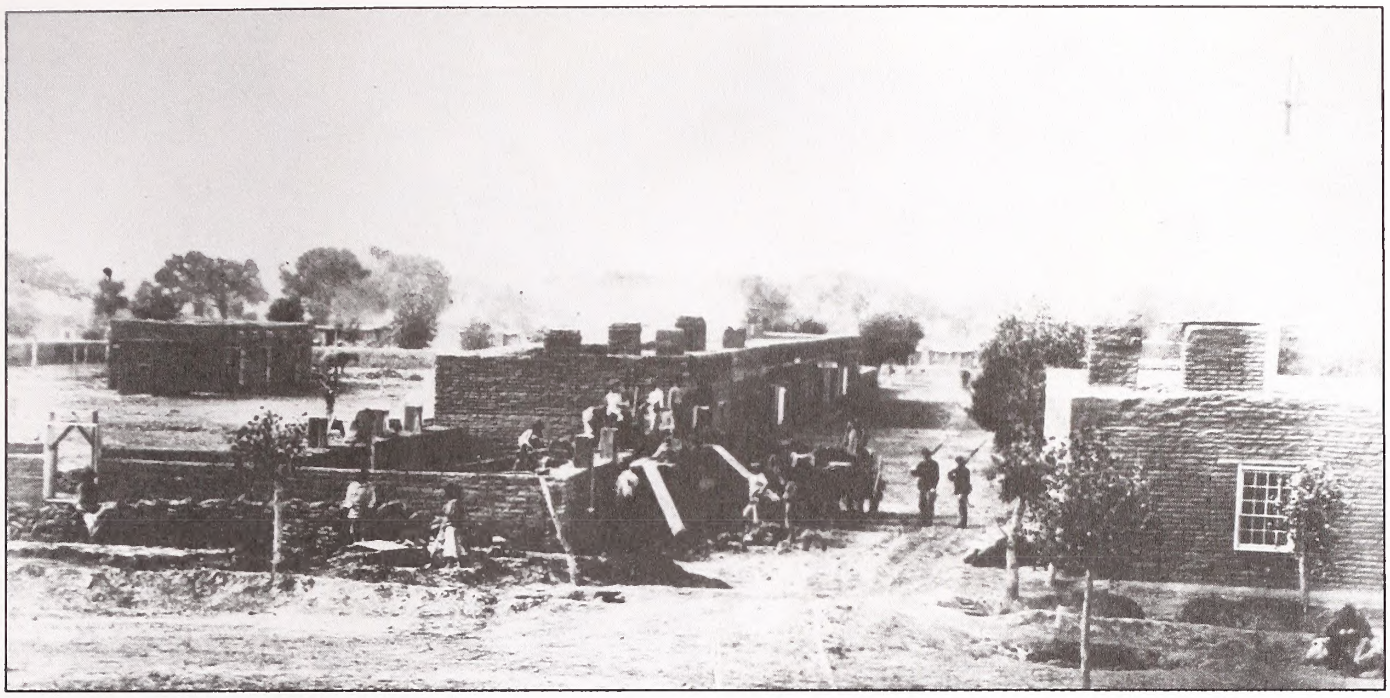
Incidents between the Chiricahua Apaches of southwestern New Mexico and Anglos were just as violent. One incident in 1852 involved a band of Chiricahua Apache from the Warm Springs area of southwest New Mexico. Their leader was *Mangas Coloradas* (Spanish for Red Sleeves). He was a tall, imposing, and intelligent man. Non-Indians began mining operations at *Pinos Altos*, near modern-day Silver City. Mangas Coloradas visited them and asked them to leave his territory. Instead of complying, the miners tied Mangas Coloradas to a post and whipped him. Mangas Coloradas and his warriors wanted revenge on the miners. The Apaches attacked mail carriages, federal wagons, and military units. Eventually the U.S. Army captured Mangas Coloradas as he attempted to negotiate with them. His guards murdered him.



Colonel Christopher "Kit" Carson. Photo taken in St. Louis, Missouri, December 1864.

The Long Walk

In 1863, the Army ordered the surrender of the Navajo and Apache people. They shot those who resisted and destroyed their homes and livestock. Colonel CHRISTOPHER (KIT) CARSON led the U.S. Army in rounding up the Navajo in their homeland. Carson forced Navajo families to make the *Long Walk*. They left

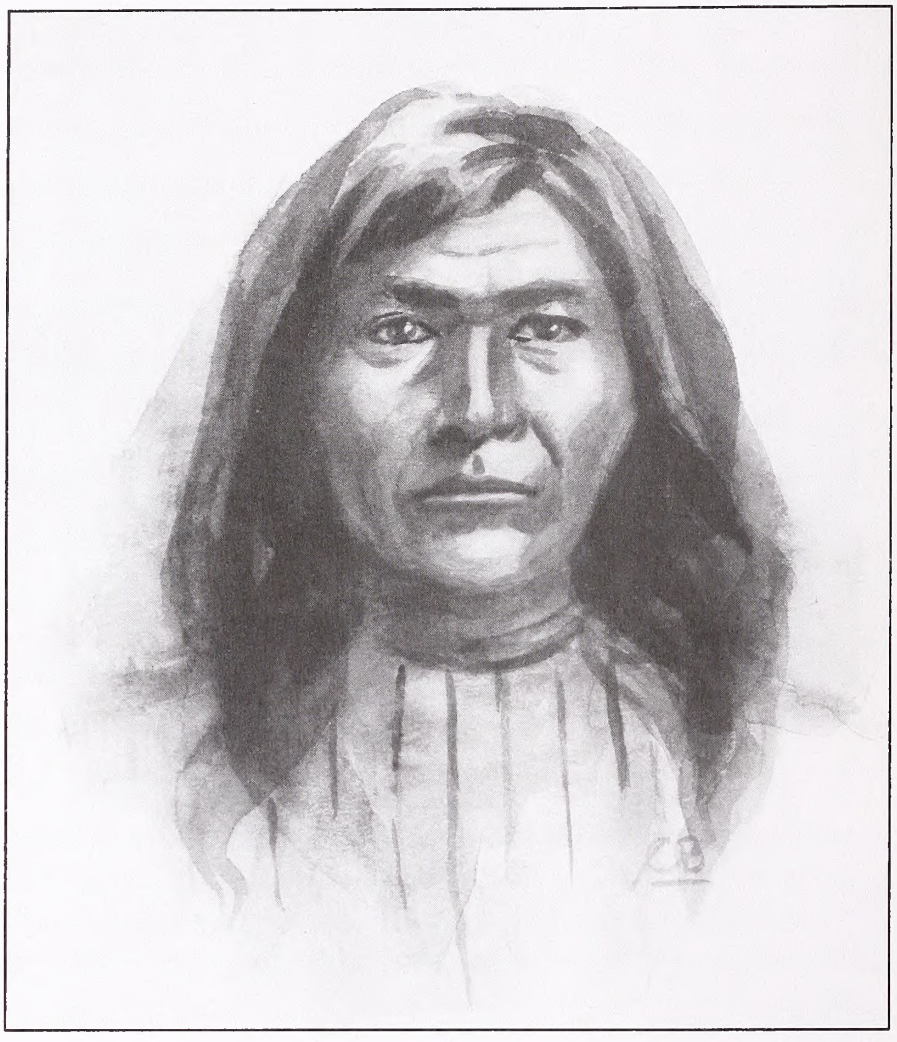


Ft. Sumner, New Mexico. Native American captives constructing the fort under armed guard, 1866.

northwestern New Mexico and northeastern Arizona. They walked to a settlement camp near FORT SUMNER, New Mexico, called *Bosque Redondo.* The Long Walk is one of the most important and tragic events of Navajo history.

Bosque Redondo had poor water, no wood, and flooded sometimes. Over 9,000 Navajo and 500 Mescalero Apache were at the camp. The army forced them to live on a small amount of poor ground. Drought and other problems prevented them from raising crops. Disease was uncontrolled and many people died. Finally, in 1868, the government permitted the Navajo to return to their homeland. The government established a reservation there in the Four Corners area for them. The Mescalero also returned to their traditional lands. The government established a reservation for them on the slopes of the White and Sacramento Mountains.

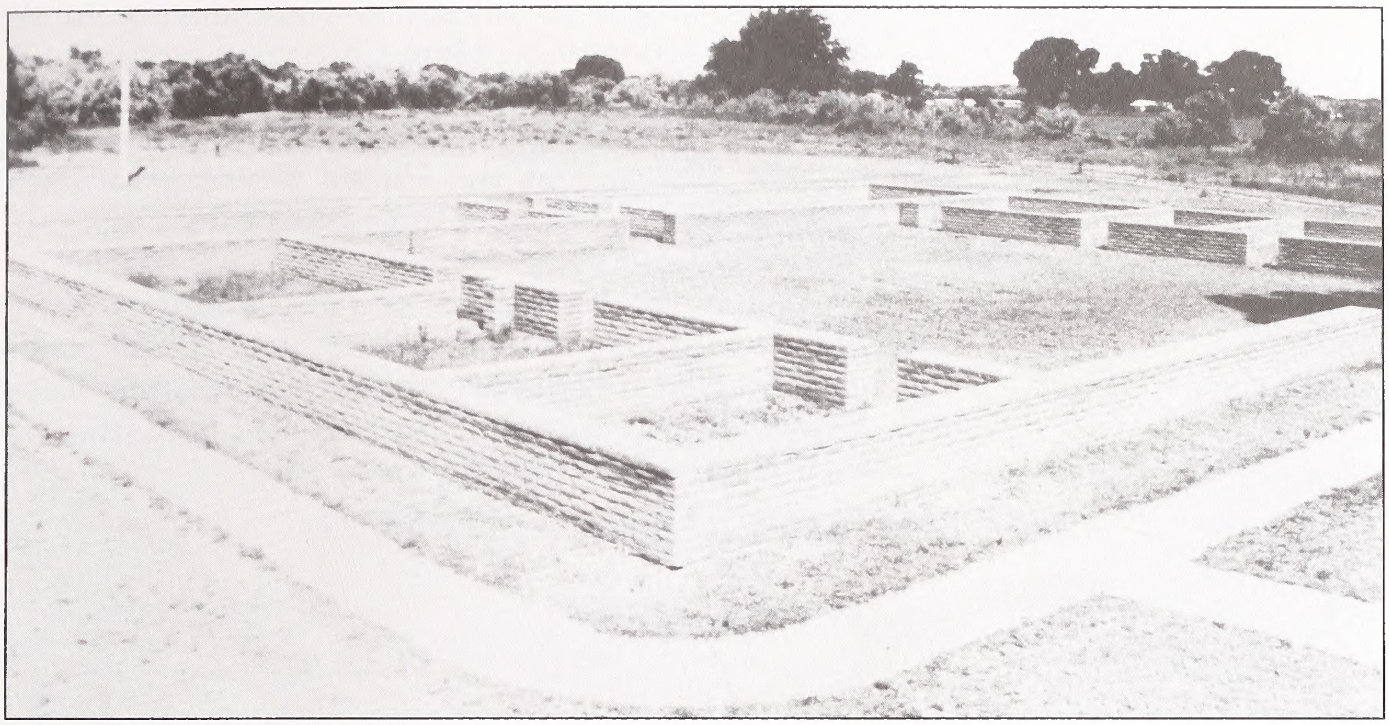
The forced stay at Bosque Redondo largely ended war between the Navajo and the settlers. It did not end the war with the Apache. Following Mangas Coloradas was another great Warm Springs Apache leader named *VICTORIO.* He had been a warrior with Mangas. After death of Mangas, Victorio rose to leadership of all the Apache people in southwestern New Mexico. In the



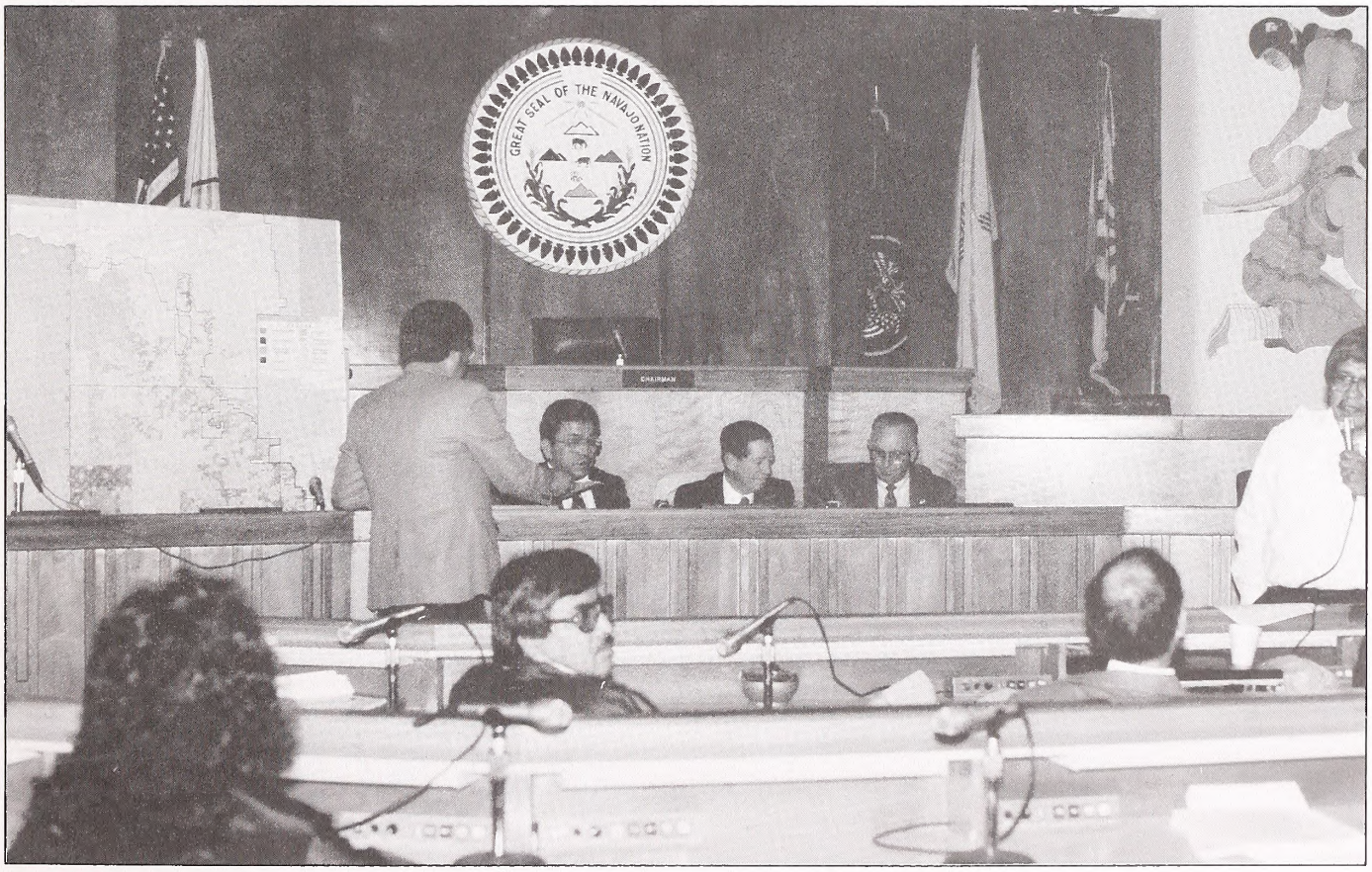
Victorio, an Apache chief.

beginning, he negotiated with the Army and the government. The government granted his people a short-lived reservation in their homelands in the 1870s. The reservation was southwest of Socorro. Government policies resulted in the elimination of that reservation. Victorio eventually lead his people in a spectacular war with the US and Mexican armies in 1879–1880.

The Apache waged a brilliant defensive campaign in the Black Range of southwestern New Mexico. Then the army forced Victorio and the Warm Spring people to move south into Mexico. The war ended with the virtual elimination of the Warm Spring people. Victorious Mexican forces killed most of them at the battle of *Tres Castillos* in October 1880. The U.S. Army removed the surviving Apache, as prisoners-of-war, to Oklahoma. Almost forty years later, just before World War I, the government let the people go. It allowed these Apache



Ft. Sumner, New Mexico , as it appears today. The orderly appearance of the walls gives archaeologists little information about the tragic events at nearby Bosque Redondo.



A meeting of the Navajo Tribal Council today. The Navajo Tribal Council governs the Navajo Nation, the largest Native American group in the United States.

prisoners-of-war to return to New Mexico, to the Mescalero Reservation. Many Chiricahua people live on the Mescalero Reservation today. Many others remained Oklahoma. These Apaches were the only Indian group in New Mexico that the United States government completely removed from their ancestral lands.

Today the Navajo are one of the largest Native American groups in the United States. The Mescalero and Jicarilla nations are strong and growing. These New Mexican groups show the endurance and vitality of their Native American cultures.

Word List

seasonal round (SEEZ-'n-ul ROWND) The pattern of moving from one camp to another following the natural cycle of ripening food.

Appendix

Appendix 1 Lesson Plans

Lesson 1
by Donna Benge and Jeanne M. Moe

Intrigue of the Past: Lesson 1, Lesson 2, and Lesson 5

TIMES PAST

Subjects	Social studies, language arts, mathematics
Skills	Knowledge, comprehension, application, analysis
Strategies	Reading, writing, counting, using scale
Duration	2–3 weeks
Class size	Any

Objectives

In their study of New Mexico's cultural history, students will use a timeline to:

1. Show when the prehistoric peoples of New Mexico lived.
2. Summarize prehistoric lifeways.
3. Compare and contrast the similarities and differences in lifeways between New Mexico's first peoples.

Materials

A "Timeline" constructed from long strips of paper, cut and pasted together (extend as needed).

A "Summary Page" for each group studied, for each student or group.

A copy of the "Comparing Cultures" activity sheet for each student or group

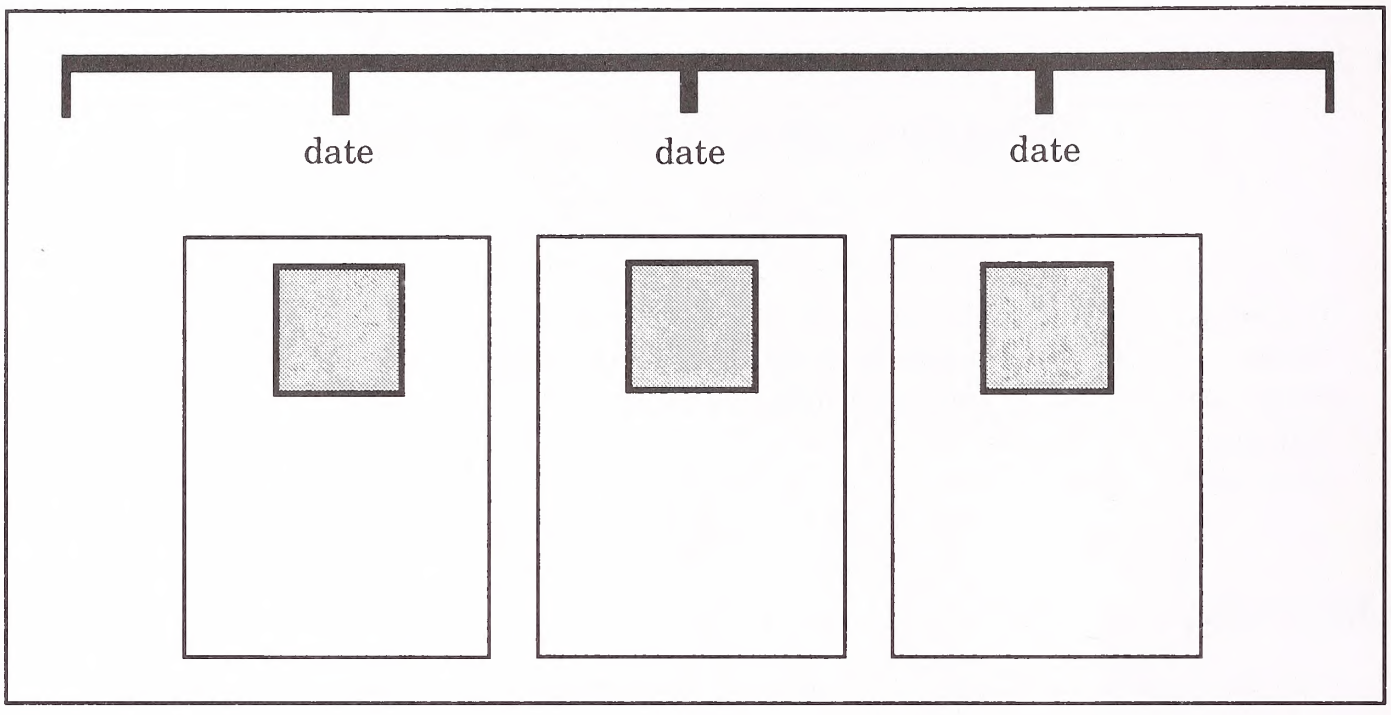
Word List

- culture
- timeline

Setting the Stage

1. Several days before beginning the unit, construct a timeline from a long strip of paper. Paste cultural groups on to the timeline as shown in the diagram. You and the students will fill in dates as you study the various time periods.

SAMPLE OF TIME LINE



2. Review the concept of a timeline with the class. For example, you may want to show the students where they would be on a timeline drawn to scale, in relation to the time of dinosaurs when people did not exist.
3. Review Lesson 1, "Why is the Past Important?" from *Intrigue of the Past.*

Procedure

1. Review Lesson 2 "Culture Everywhere" from *Intrigue of the Past.* Remind the students that people have basic needs which must be met.
2. After each lesson about the people who have inhabited New Mexico, have a student or group of students write a summary paragraph and draw a picture describing how the culture that has just been studied meets their basic human needs. Conduct a discussion and transfer the ideas to the appropriate "Summary Page" and paste it to the classroom timeline.
3. Show students that the timeline is not to scale; it does not show the relative amount of time that each group lived in New Mexico. For example, the Archaic people inhabited the region for thousands of years while the Athapaskan people have lived in New Mexico for only a few hundred years.

Closure

After all the groups of people of New Mexico have been studied, the students can write an essay or create an illustration or diorama or skit showing what they have learned about one group that they studied.

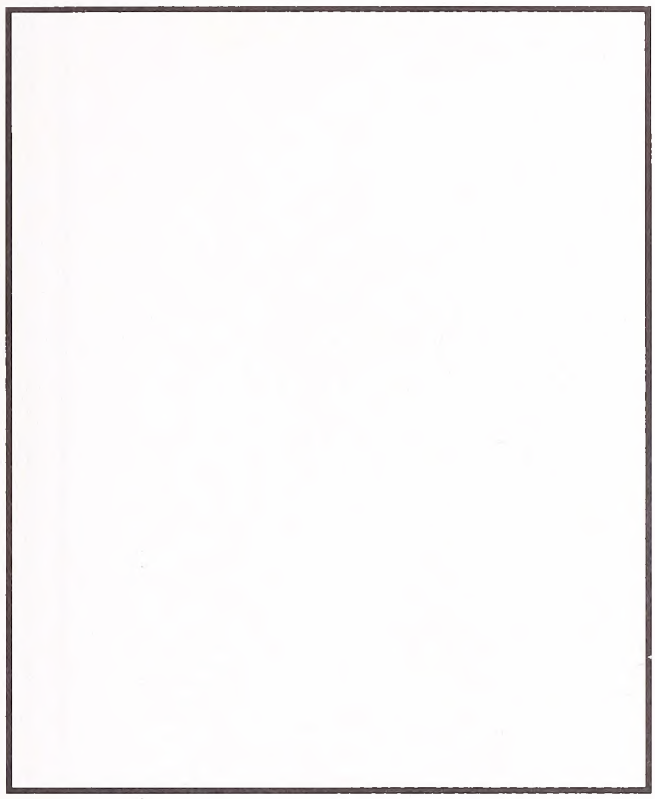
Evaluation

Evaluate students' essays, illustrations, dioramas, or skits.

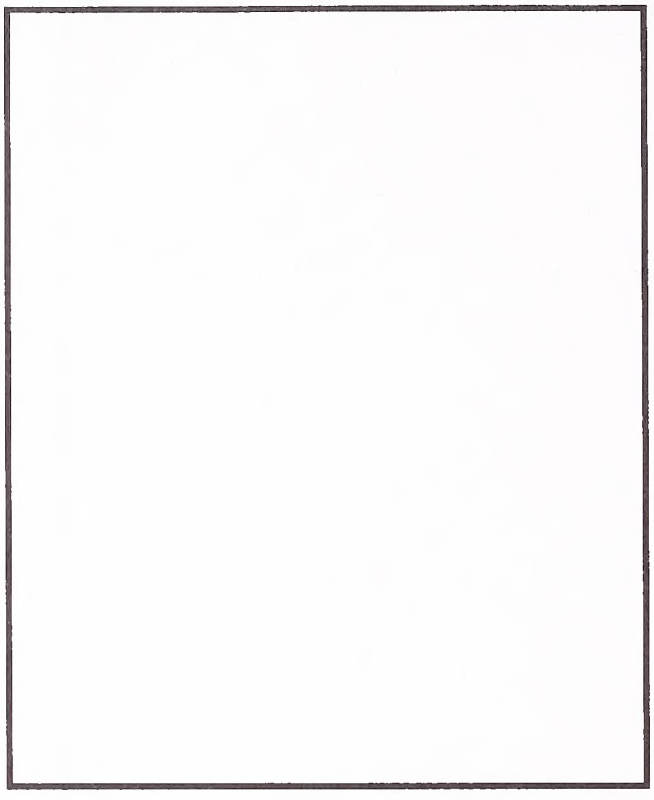
Extensions

1. The students draw their own timelines to scale.
2. Use the information the students have found about New Mexico's prehistoric cultures to fill in the "Comparing Cultures" activity sheet. In a class discussion, compare and contrast the lifeways of the groups.

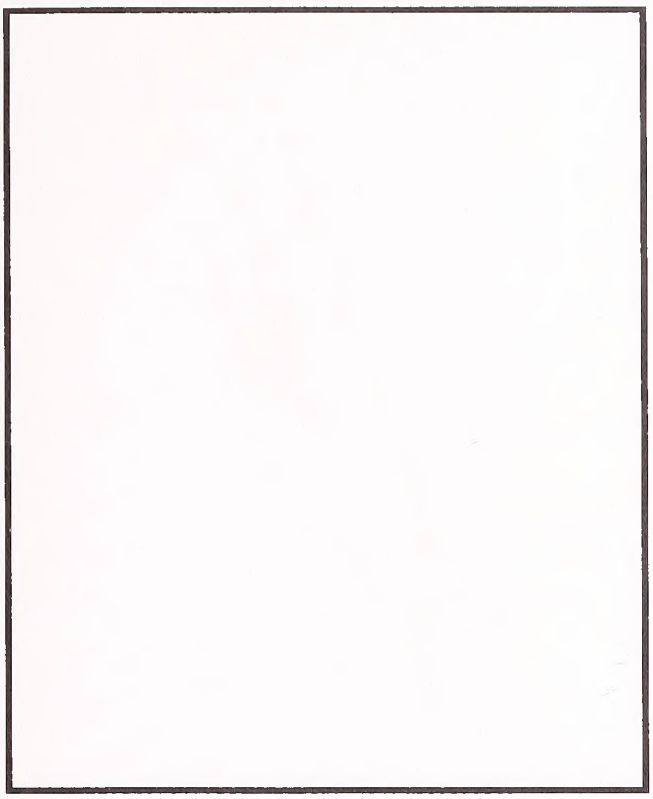
Paleo–Indian People



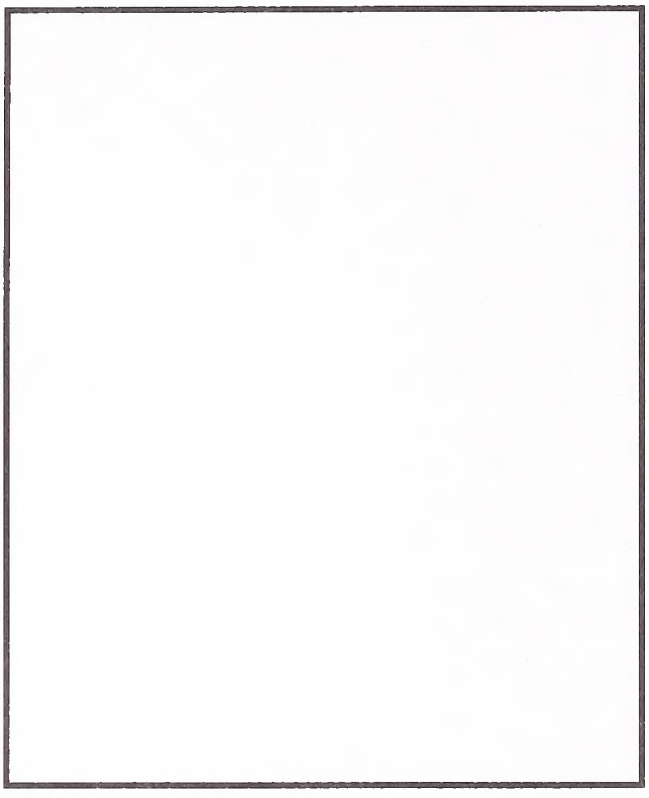
Archaic People



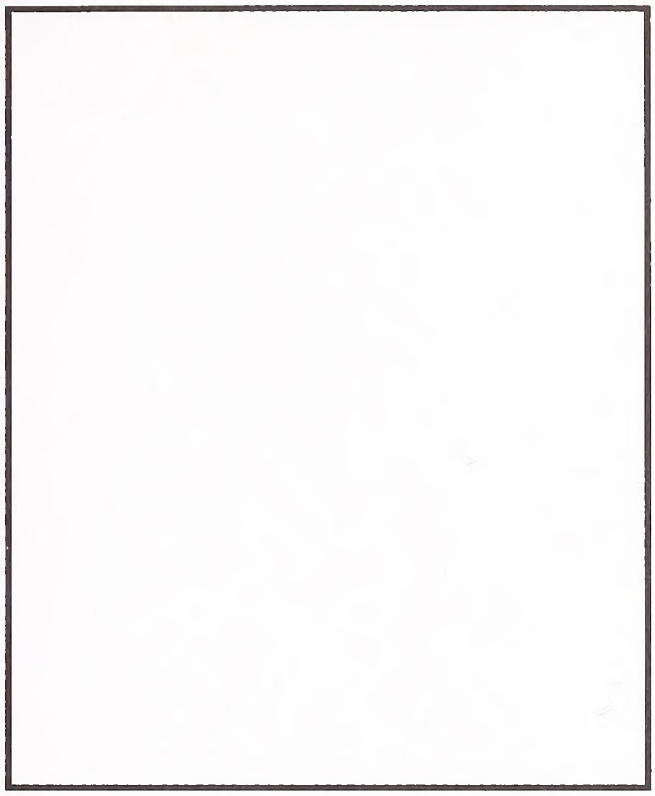
The Ancestral Pueblo: Basketmaker II—Pueblo I



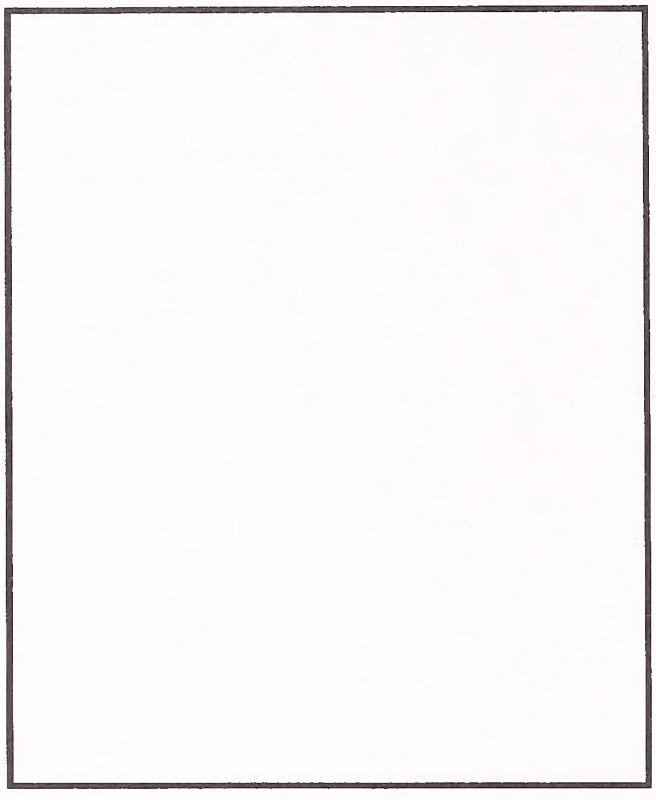
The Ancestral Pueblo: Pueblo II



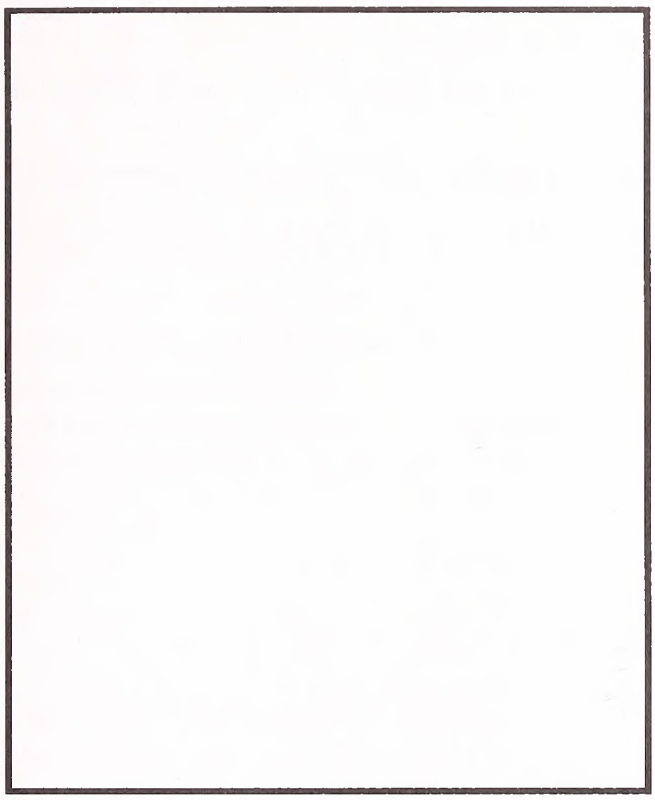
The Ancestral Pueblo: Pueblo III—IV



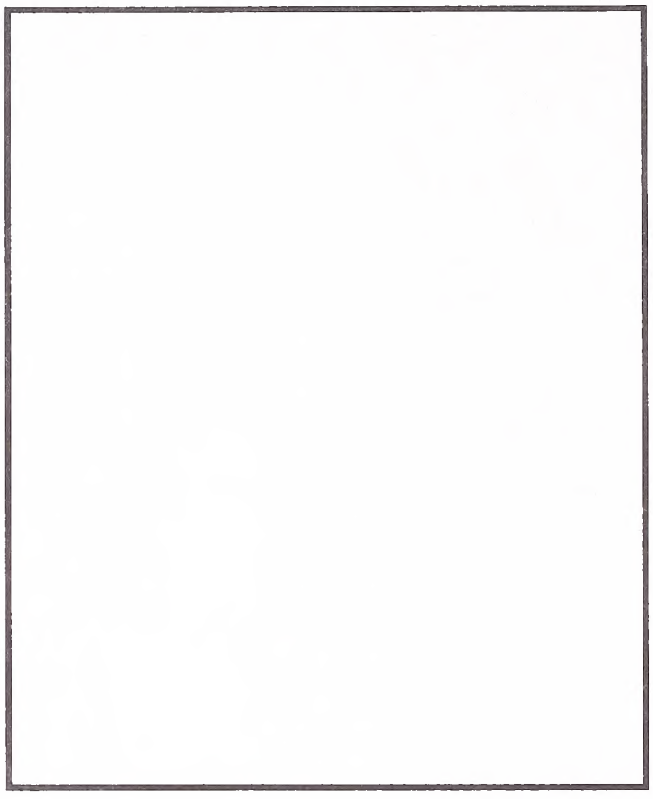
The Mogollon



The Athapaskans



The Spaniards



Discovering Archaeology in New Mexico
Lesson 2
by Donna Benge and Jeanne M. Moe

Related text: Chapters 1, 2
Intrigue of the Past: Lesson 3, Lesson 7, and Lesson 16

THE SPEAR AND THE ATLATL

Subjects	Science, social studies, mathematics
Skills	Application, analysis, evaluation
Strategies	Reading, scientific inquiry, observation, discussion, graphing
Duration	Approximately 30 to 45 minutes for each of two days
Class size	Any, groups of 4

Objectives

In their study of Paleo-Indian and Archaic technology, students will use a worksheet and other materials to:

1. Create a spear and an atlatl.
2. Conduct an experiment to learn which weapon is more efficient.
3. Evaluate their experimental results.
4. Analyze the adoption of the atlatl using scientific inquiry.

Materials

Copy of "Throwing Experiment" activity sheet for each group

One meter or yard stick for each student

One foot long ruler for each student

One half pint milk carton for each student

Masking tape

One metric tape for each group

Large bar graph for recording class conclusions

Word List

- Archaic
- atlatl
- extinct
- megafauna
- Paleo
- spear

Setting the Stage

1. Construct your own spear and atlatl using the instructions on the "Throwing Experiment" activity sheet.

2. Show the students the atlatl, explain how it works, and compare it to the spear.

3. Ask the students: Why might people have invented this weapon and stopped using the spear? Obviously it must have been a better hunting tool. How might we find out? (Conduct an experiment to test throwing distance.)

Procedure

1. Have students read Chapters 1 and 2 to answer the following questions: How did weapons change during the Paleo-indian and Archaic periods?
2. Have students work in groups of four to make their "spears" and "atlatls" following the directions on the "Throwing Experiment" activity sheet.
3. After the students have completed the experiments, make a class bar graph. The atlatl should travel farther than the spear most of the time.

Throwing experiment instructions:

a. Set up a throwing range. Measure and mark off it in one meter increments.

b. Demonstrate how to throw the spear without the atlatl, then with the atlatl. Have each student throw the spear several times, following the safety rules.

c. Students perform their experiments.

Safety Rules: Have several students throw spears at the same time. When all spears have been thrown each students retrieves his or her own spear. Alternatively, assign one student to retrieve all spears after all have been thrown.

Note: Some students are reticent to throw things in front of others because they fear social or gender derision. If this could occur in your class, you may want to divide students into groups where it will be less likely to happen.

Closure

As a class or in small groups discuss the following: What other factors besides efficiency might have caused the switch to atlatls? Examples include: different game requires different technology, materials suitable for making atlatls was not available during early Paleo-Indian times, and the principle of leverage was discovered

Evaluation

Students describe how they applied each step of the scientific method to their study of technological change.

Extensions

1. Challenge the students to make a better spear and atlatl. They would need to do research to find out how the early people actually made their tools.
2. Have a student or students write a summary report for the timeline about the Paleo-Indian and Archaic people focusing on the development of the atlatl or describing how they met their basic needs.
3. Using Lesson 7: "Scientific Inquiry" from Intrigue of the Past as a guide, design a scientific inquiry based on the question: Why did Archaic people invent the atlatl and stop using the spear?

Worksheet 2-1

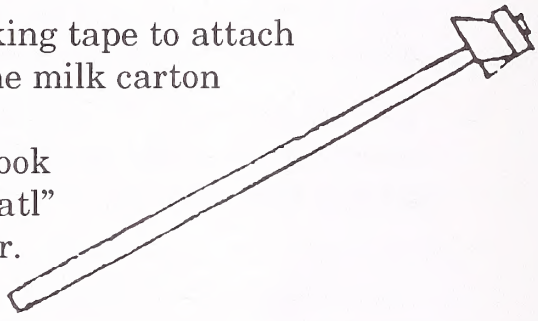
Name _____
Date _____

1. You will need two meter (or yard) sticks and an empty half-pint milk carton. Your spear is the meter stick. It is ready to use. Now you need to make the atlatl. Cut the top off the milk carton and use masking tape to attach it to the other ruler as illustrated below.

1. Empty half-pint milk carton

Cut along dotted line

2. Use masking tape to attach the top of the milk carton to a ruler forming a hook on your "atlatl" for the spear.



2. Now you are ready to do your throwing experiments. When everyone in the class has finished making their atlatl, go outside away from anyone and conduct your throwing experiments. Be sure to follow your teacher's safety rules. Your problem is: ***Which will travel further, the spear or the spear thrown with the atlatl?***

What is your group's hypothesis? _____

_____

3. Each person needs to practice throwing the spear and using the atlatl. After about 3 or 4 test tries, throw the spear four times measuring the distance with a metric tape or stick. Record these distances. Then throw the spear four more times using the atlatl. Record these distances.

SPEAR	ATLATL
1. _____ meters	1. _____ meters
2. _____ meters	2. _____ meters
3. _____ meters	3. _____ meters
4. _____ meters	4. _____meters

Average the four spear throws (add your four numbers and divide by 4) then the four atlatl throws.

Average distance for spear _____ meters

Average distance for spear with the atlatl _____ meters

What is your conclusion? _____

_____

Put your conclusion on a class graph.

5. The atlatl should make the spear go farther. Why is this? _____

_____

6. How could you make your tools work better? _____

_____

7. Which do you think would work better for killing large animals, the spear alone or with the atlatl? Why? _____

_____

8. How do you think the early people discovered the atlatl? _____

_____

Discovering Archaeology in New Mexico
Lesson 3
by Donna Benge and Jeanne M. Moe

Related text: Chapters 3, 4, 5
Intrigue of the Past: Lesson 8, Lesson 13, and Lesson 17

LET'S EAT!

Subjects	Science, social studies, language arts, mathematics, health
Skills	Synthesis, evaluation
Strategies	Discussion, reading, writing, recording
Duration	Two 30 to 45 minute sessions
Class size	Any, groups of 6

Objectives

In their study of prehistoric nutrition, students will use a prehistoric food list to:

1. Create a new recipe.
2. Evaluate the adequacy of the Ancestral Pueblo diet.

Materials

Transparency or "A Guide to Daily Food Choices"

Copies of "Let's Eat" and "Our Ancient Recipe" for each group

Examples of as many prehistoric food plants as possible or use pictures

Pictures of the domestic and wild animals used for food

Examples of recipes (at least one for each group)

Word List

- Anasazi
- nutrition

Setting the Stage

1. Project "A Guide to Daily Food Choices." As a class discuss the following: How do Americans obtain the foods we need? Imagine that you lived in New Mexico before stores were built and had to obtain all of your food from the surrounding environment. How would your diet be similar to a modern American diet? How would it be different?

Procedure

1. Have students read Chapter 3 and list all the foods that the Anasazi ate. How did they obtain and prepare each food? Show the students the plant and animal foods that the Ancestral Pueblo people ate.
2. Divide the class into groups of 6 and give the activity sheets and a sample recipe to each group. Give them 25 minutes to complete the activity and write their recipe.
3. Each group shares their recipes with the other groups.

Closure

1. As a class or in small groups, construct a food pyramid for the Ancestral Puebloan using the food pyramid shown on the "A Guide to Daily Food Choices" activity sheet as a model.

2. Did the Ancestral Pueblo have an adequate diet according to U.S. Government Standards? In what ways might the diet of the Anasazi have been better than that of modern Americans? In what ways was it not as good? The American Cancer Association (ACA) recommends 4-5 servings of fruits and vegetables per day. Did the Ancestral Pueblo have an adequate diet according to the ACA?

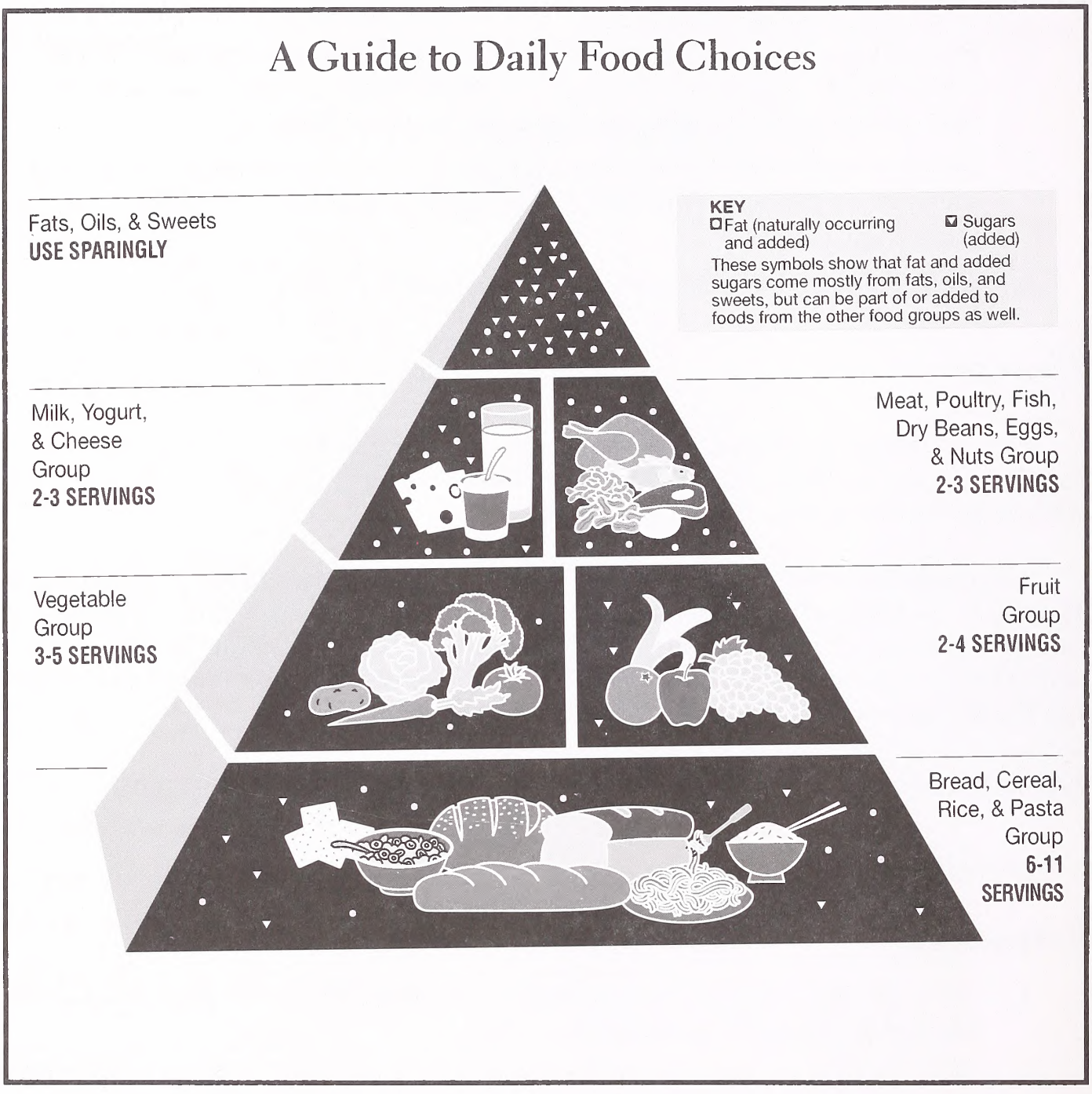
Evaluation

Evaluate students' recipes.

Extensions

1. Have students find out how archaeologists learn what the Ancestral Pueblo ate and describe the process in an essay.
2. Have a student or group of students write a summary for the timeline about the Anasazi (Basketmaker II - Pueblo I) describing how they got and prepared their food.

(adapted from an activity from "The Archaeologist" by the Anasazi Education Outreach,1984)



"Food Guide Pyramid: A Guide to Daily Food Choices"
(Courtesy of the U.S. Department of Agriculture and the U. S. Department of Health and Human Services)

Worksheet 3-1

Name _____

Date _____

LET'S EAT!

Background

If you were an Ancestral Pueblo, you would use some of these foods to make your meals. Choose ingredients from the lists below and make up a casserole type recipe. Try to use foods from each food group.

Bread, Cereal, Rice, and Pasta Group

Grains and seeds provide energy and keep you on the go.

- Pinion nuts
- Amaranth seeds
- Mormon tea seeds
- Sunflower seeds
- Scrub oak nuts

Vegetable and Fruit Groups

The vitamins from these groups help keep your skin healthy and your inside body parts working right.

- Corn
- Squash
- Juniper berries (taste sort of like onions)
- Yucca pods (sweet and sticky)
- Wild onions
- Berries
- Rose hips (taste like lemons and oranges but are not as juicy)
- Pigweed greens (taste like Brussels sprouts)
- Beeweed greens (taste like spinach)
- Goosefoot (tastes like pigweed)
- Prickly Pear fruit (sweet and sticky)

Meat, Poultry, Fish, Dry Beans, and Nut Group

This group provides protein for strong muscles and bones so you have strength for growing and healing.

- Beans
- Fish
- Turkeys
- Deer
- Mice (bones and all)
- Rabbits
- Elk

Milk, Yogurt, and Cheese Group

The Anasazi did not have foods from this group.

1. Decide what you are going to make. List the foods you will use in your recipe. While prehistoric people did not have measuring cups or spoons exactly like ours they may have had measuring devices. Imagine what they might have used and include these in the recipe. _____

_____

_____

2. Tell how you will prepare the foods. What will you need to cut, grind, pound, or crush before cooking? _____

_____

_____

3. What containers will you use and how will you cook the food? _____

_____

_____

4. How many people will it feed? _____

5. Write your recipe in the blank below. Don't forget to write all the ingredients (and how much of each thing) and the cooking directions. Include cooking time, but remember, there were no clocks.

OUR ANCIENT RECIPE

_____

NAME OF DISH

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

7. Would you serve this to your best friends?
Why or why not?

Discovering Archaeology in New Mexico
Lesson 4
by Donna Benge and Jeanne M. Moe

Related text: Chapters 4, 5
Intrigue of the Past: Lesson 3 and Lesson 7

LET'S BUILD A PUEBLO

Subjects	Social studies, mathematics
Skills	Application, analysis
Strategies	Discussion, reading, computing
Duration	Two 30 minute periods
Class size	Any, groups of 4

Objectives

In their study of prehistoric construction, students will analyze data and use math skills to:

1. Compute the number of rocks required to build a section of a wall at Pueblo Bonito.
2. Estimate how much work might be involved in building Pueblo Bonito.

Materials

Transparency of Pueblo Bonito (page 4-1) or slides, or photographs of Pueblo Bonito from books

Copies of the "Rocks, Rocks, Rocks" activity sheet for each group

Word List

- Anasazi
- pueblo
- chinking stones

Setting the Stage

1. Project the transparency of Pueblo Bonito (or slides if you have them) or show photographs of the pueblo. Ask the students: What questions come to your mind when you look at this structure? Examples include: How did they build it? How long did it take? How many people worked on it?

2. Return to the question: How long did it take? Ask the students how they might find out. They could build a wall and see how long it takes. Because it would be difficult for students to construct a rock wall, alternatively they might make estimates based on the number of rocks in a section of wall.

Procedure

1. Read Chapters 4 and 5 to answer the following: How did the Anasazi build their pueblos? How did building methods change over time?
2. Review relevant math skills if necessary.
3. Divide the class into groups of four and give each group the "Rocks, Rocks, Rocks" activity sheet to complete.
4. As a class, compare results.
5. Answers to WORKSHEET 4-1 math problems: 1. 33 2. 66 3. 132 4. 528

Closure

How might archaeologists learn how much labor and time were required to build a structure such as Pueblo Bonito? How might an archaeologist use this information in his or her study of prehistoric lifeways in Chaco Canyon?

Evaluation

Use the worksheet as an evaluation or formulate similar problems to check for understanding of the math concepts.

Extension

1. Have students make up similar problems using available data.

2. Have a student or group of students write a summary for the time line about the Anasazi (Pueblo II - IV) focusing on pueblo construction or describing how they met their basic needs.

(This Lesson Plan adapted from an activity by Rich Lang)

Worksheet 4-1

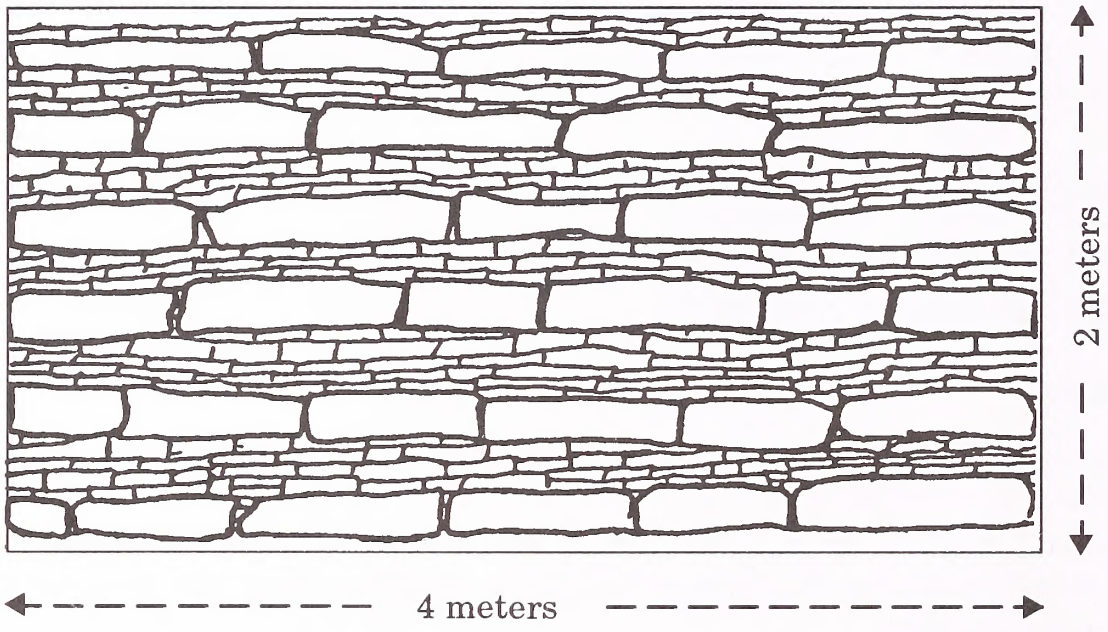
Name _____

Date _____

ROCKS, ROCKS, ROCKS

After you have read about the Ancestral Pueblo at Chaco Canyon, you are ready to begin working on the math problems.

Look at the picture of a portion of wall at Pueblo Bonito and solve the problems.



1. How many large stones are in this section of the wall? _____

2. How many large stones might be needed in a wall 8 meters by 2 meters? _____

3. If a wall that was 8 meters by 4 meters were built, how many large stones would be needed? _____

Worksheet 4-1 (cont.)

4. How many large stones would be on a surface that was 8 meters wide and 16 meters high? _____

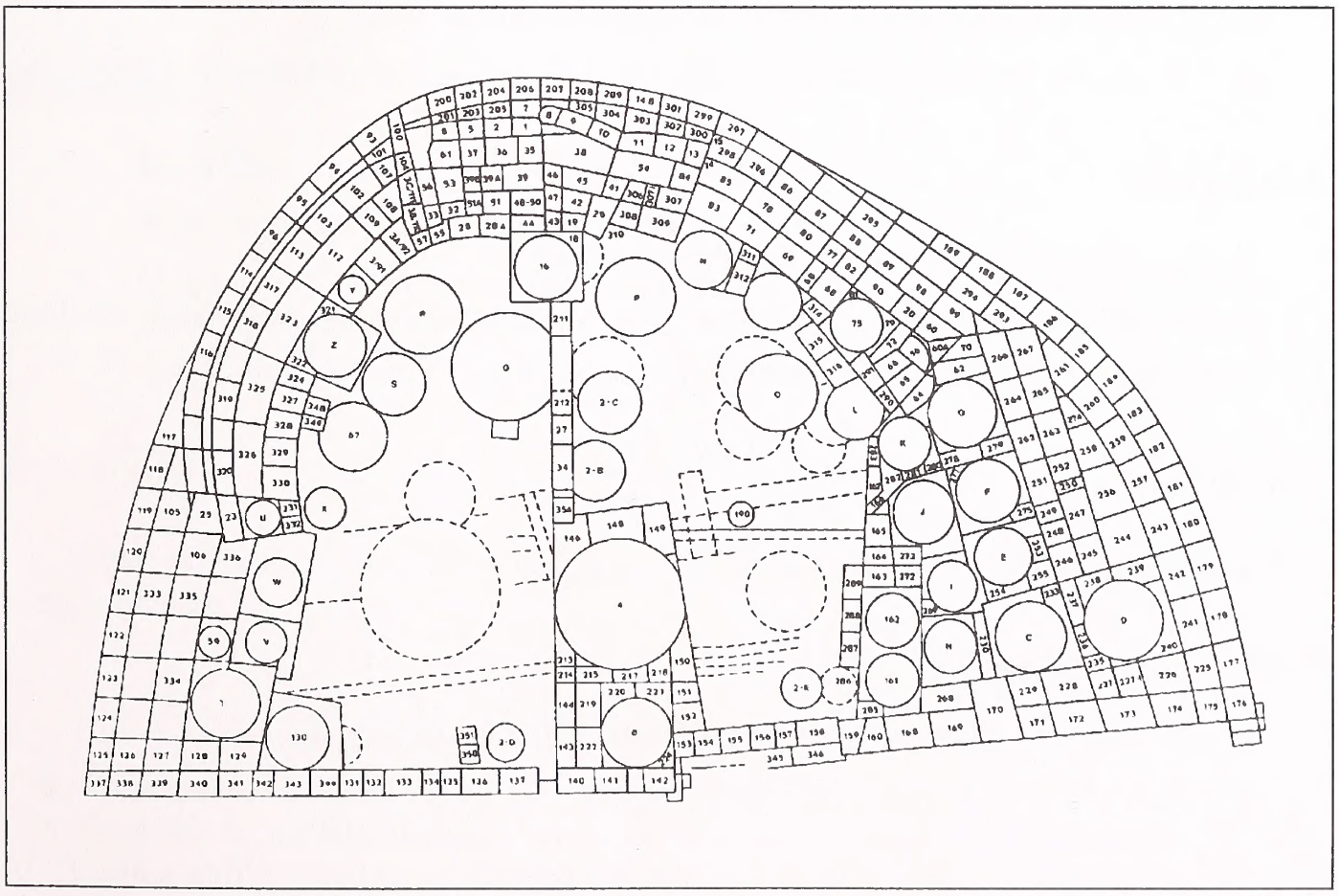
6. As you look at a picture of Pueblo Bonito, you can see that it must have taken quite a lot of labor to build it. How long do you think it would take 100 people to build a section of wall 5 stories high. Remember that at the bottom, the walls are thicker. The stones have to be carried quite a distance then shaped for the wall. Also the little chinking stones need to be put in.

_____

_____

7. Do you think you would like to be on one of the construction crews? _____

Why or why not? _____



Discovering Archaeology in New Mexico
Lesson #5
by Donna Benge and Jeanne M. Moe

Related text Chapter 6
Intrigue of the Past: Lesson 14, Lesson 22," Lesson 24, Lesson 25," and Lesson 28

"TAKE ACTION — SAVE THE PAST"

Subjects	Social studies, language arts, art
Skills	Comprehension, synthesis, evaluation
Strategies	Discussion, reading, writing, drawing
Duration	45 minutes to an hour
Class size	Any

Objectives

In their study of Mimbres lifeways, students will use an essay and worksheets to:

1. Describe how archaeologists use pottery designs to study past lifeways.
2. Ceate stories from Mimbres pottery designs.
3. Create a design of their own using the Mimbres style.
4. Evaluate the loss of Mimbres sites to archaeologists and Native Americans.

Materials

Transparency of "A Mimbres Bowl" activity sheet

Copies of "Tell the Story" and "Draw Your Own" activity sheets for each student

Crayons, colored pencils, or paint (optional)

Word List

- Mimbres
- Mogollon
- pottery

Setting the Stage

1. Project the transparency of "A Mimbres Bowl" activity sheet.
2. Ask students to describe what they see. Based on their observations, ask students what these designs might tell an archaeologist about the lives of the people who made them. Might the painter have been telling a story? If

so, what might that story have been?

3. Explain that the students will learn about the Mogollon culture area and how archaeologists use Mimbres pottery designs to interpret past lifeways. They will also create a story from a Mimbres pottery design and create their own pottery design.

Procedure

1. Read Chapter 6 to answer the following: How did the Mogollon people live? What does their pottery tell us about their lifeways?
2. Distribute copies of "Tell the Story" and "Draw Your Own" activity sheets to each student. After everyone has completed the two activity sheets, have the students share their stories and pictures with the class or arrange them on a bulletin board.

Closure

1. Ask the students: What information do archaeologists lose when Mimbres sites are looted and the pottery stolen? What can you do to help protect Mimbres sites?
2. Do Lesson 24 "Grave Robbers" from *Intrigue of the Past.*

Extension

1. Read Byrd Baylor's *When Clay Sings* to the class.
2. Make a collage of the pottery designs.
3. Have a student or group of students write a summary about the Mogollon and the importance of their pottery for the timeline or describe how they met their basic needs.

Evaluation

Have students submit their creative writing projects for evaluation. Check for comprehension.

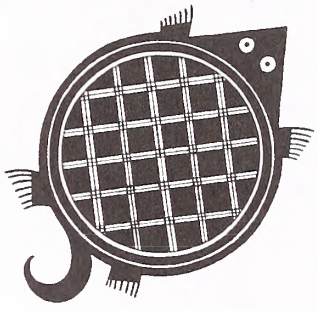
Worksheet 5-1

Name_____

Date_____

TELL THE STORY

Choose a Mimbres pottery design that you like and write a tale about it. Be sure to have an interesting beginning, middle, and ending. Use another sheet of paper if you don't have enough room for your whole story. After you have written it, exchange your paper with a friend to edit.

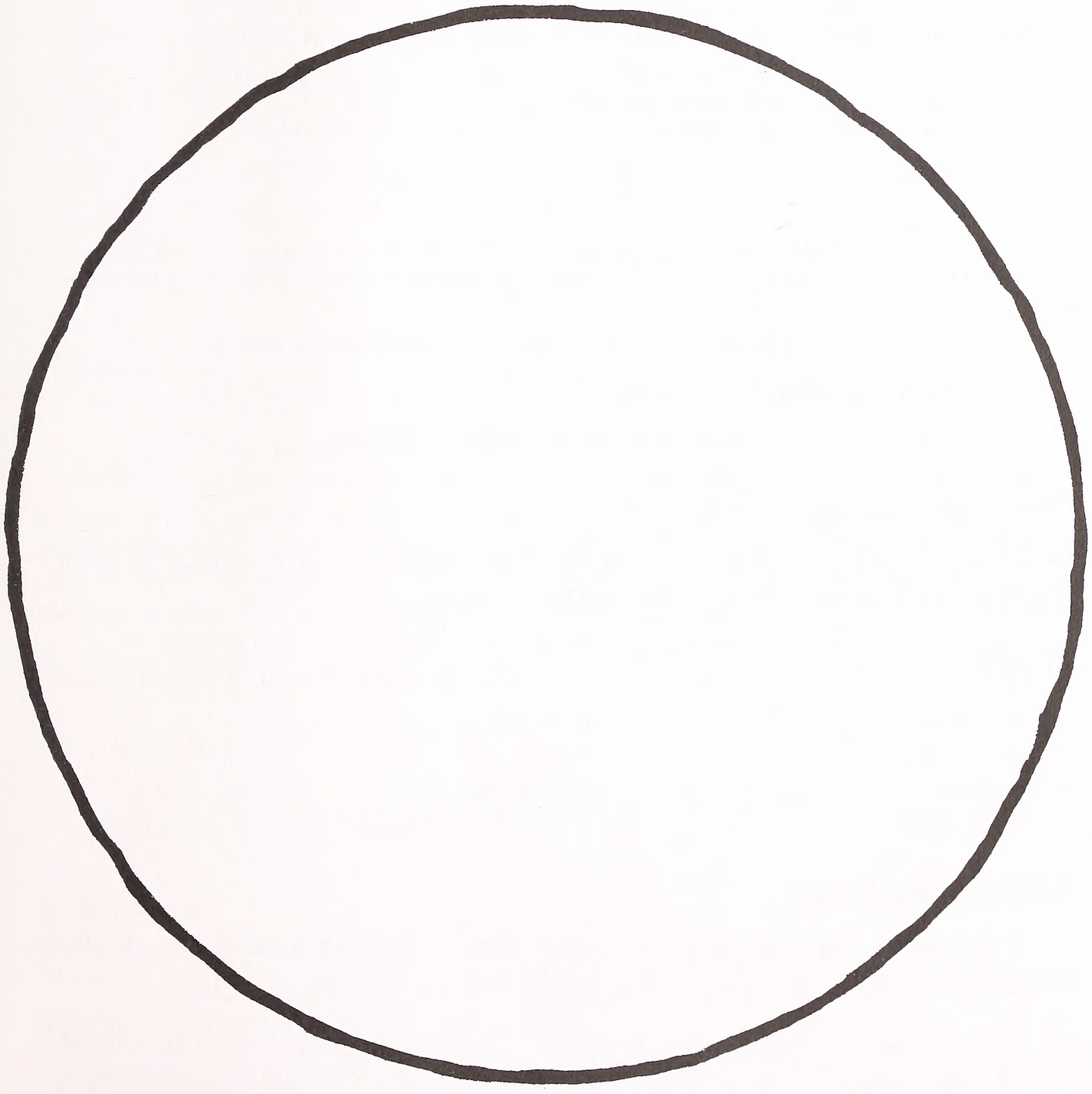


Worksheet 5-2

Name_____

Date_____

Pretend that you are living in a Mimbres village and create a design for a bowl.



Discovering Archaeology in New Mexico
Lesson 6
by Donna Benge and Jeanne M. Moe

Related text Chapter 7
Intrigue of the Past: Lesson 6, and Lesson 11

MISSION ARTIFACTS

Subjects	Science, social studies, language arts
Skills	Application, analysis, evaluation
Strategies	Scientific inquiry, reading, classifying, comparing and contrasting, decision making, writing
Duration	Two 30 to 45 minute periods
Class size	Any, groups of 4 to 5

Objectives

In their study of pueblo missions, students will use artifacts and the scientific process to:

1. Classify artifacts and answer questions about historic events.
2. Formulate their own questions.
3. Evaluate historical and archaeological information.

Materials

Copies of "Artifacts at a Pueblo Mission" and "Archaeology Report on Mission Stabilization Project" activity sheets for each group.

Word List

- artifact
- classification
- data
- mission
- pueblo
- site
- stabilize

Setting the Stage

1. Divide students into groups of 4 or 5. Give each group a set of the "Artifacts at a Pueblo Mission" activity sheets. Tell them the following:

2. Tell the students you are working with a team of archaeologists at a Spanish mission which was built at an Native American pueblo. Your job is to stabilize or repair the walls of the mission. You must first carefully excavate down about 10

centimeters along the sides of the walls to expose the foundations. In the process you find 16 artifacts. To learn what happened at the site, you must study the artifacts.

Procedure

1. Review the concepts from Lesson 6, "Classification and Attributes" and Lesson 11 "Artifact Classification" in *Intrigue of the Past.*
2. Students classify the artifacts to answer the following questions:
    a. How many historic (Spanish) artifacts are there? How many Indian artifacts are there?
    b. How many religious artifacts are there?
    c. How many different activities took place at this site?
3. Have the students write one or more of their own questions and classify the artifacts accordingly.
4. How does classification help archaeologists learn what happened in the past?

Closure

1. Have students read Chapter 7.

2. Ask each group to compare the results of their artifact study to the historic accounts of the early Spanish in New Mexico. What information does the historic account provide that the artifacts do not? What information do the artifacts convey that written history does not? (The historic account gives general information about the region while the artifacts are a record of what happened at this particular site.)

3. Have students write their "Archaeology Report on Mission Stabilization Project" individually or in their groups.

Evaluation

Evaluate students' reports.

Extension

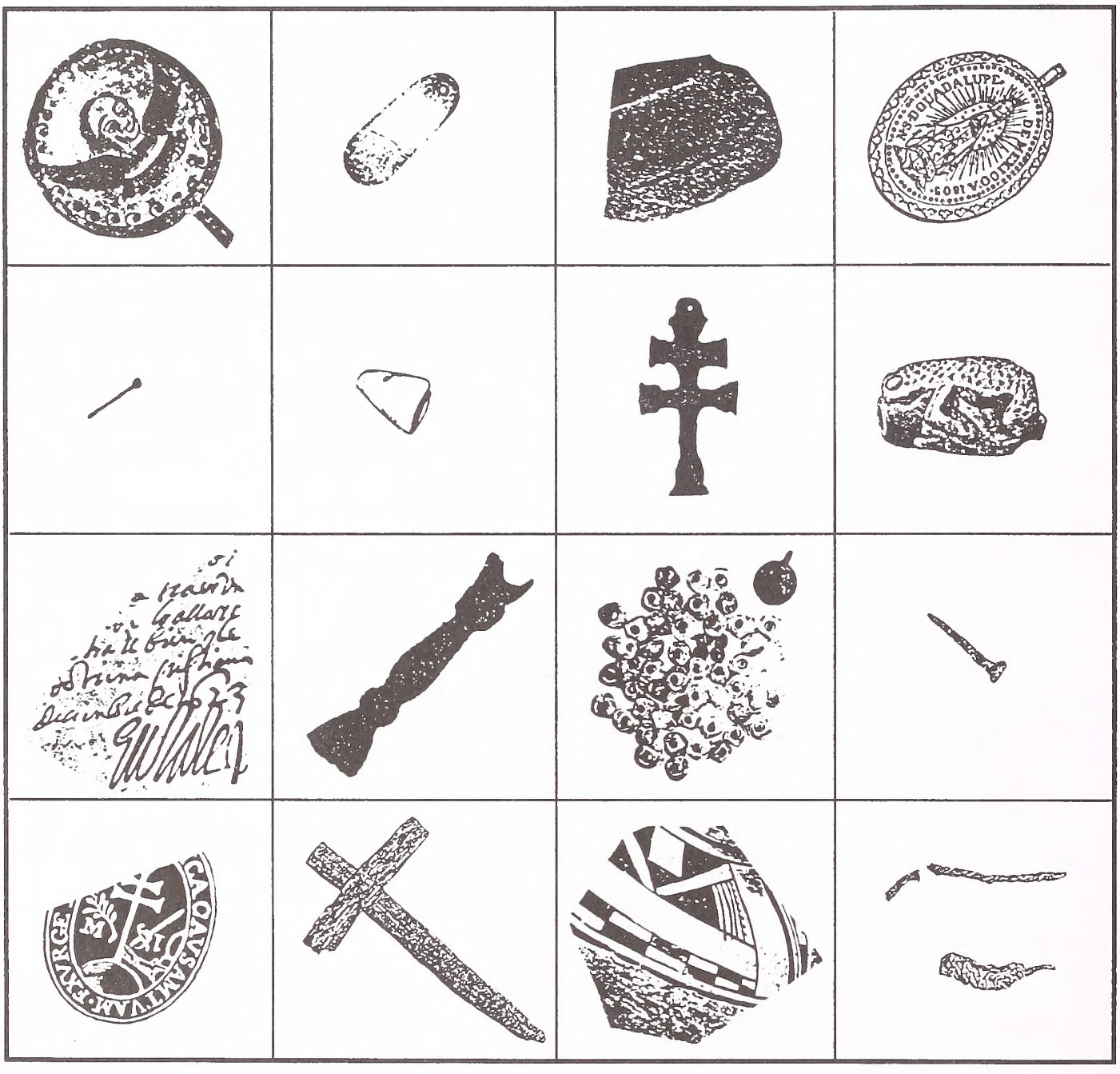
1. The students can share their reports then debate their classifications and determinations of what the artifacts are.

2. Have a student or students write a summary report for the time line describing how the Spaniards lived in New Mexico and related to the Native people.

Worksheet 6 - 1

Name _____

Artifacts at a Pueblo Mission



Identification Key

[*Images from chart above, reading left to right, top to bottom*]

1) Decorative piece from altar screen. 2) Stone pendant. 3) Part of a metate. 4) Religious medal. 5) Pin. 6) Shell (jewelry). 7) Double barred cross. 8) Clay pipe. 9) Piece of permit signed by Governor Eulate. 10) Brass candle holder. 11) Remnants of a rosary. 12) Nail. 13) Part of Seal of Mexican Inquisition. 14) Wooden cross. 15) Piece of pottery. 16) Pieces of rope (probably from a priest's robe).

Worksheet 6-1 (cont.)

Name _____

Date _____

ARCHAEOLOGY REPORT ON MISSION

STABILIZATION PROJECT

Tell what artifacts you found during the excavation and how you think they relate to both the mission and pueblo. Tell how old you think they are.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

After you have finished editing your report, write the final copy on another sheet of paper. You can either copy it neatly in manuscript or cursive. If a computer is available, use it to copy the report. Be sure to use the Spell Check.

Discovering Archaeology in New Mexico
Lesson 7
by Donna Benge and Jeanne M. Moe

Related text Chapter 8
Intrigue of the Past: Lesson 1, Lesson 2, and Lesson 15

THE LONG WALK

Subjects	Social studies, language arts, mathematics
Skills	Application, synthesis, evaluation
Strategies	Reading, mathematics, map reading, writing, role playing
Duration	Two 30 to 45 minute periods
Class size	Any, groups of 4 to 5

Objectives

In their study of Navajo and Apache history, students will use a story, a map, and historic information to:

1. Determine the distance the Navajos traveled during the Long Walk.
2. Dramatize what might have happened on the Long Walk.
3. Describe how modern Navajos might feel about the Long Walk.

Materials

A copy of "Map of the Long Walk" activity sheet for each group.

Word List

- Athapaskan
- Navajo
- reservation

Setting the Stage

Read "The Long Walk" to the class. Ask the students to imagine what it might have been like to be a child on the Long Walk. What might they have done? How might they have felt?

Procedure

1. Students read Chapter 7 to answer the following questions: Where did the Navajo and Apache peoples come from originally? How did they live when they arrived in the Southwest? What events led up to the Long Walk? As a class, review what they learned.
2. Divide students into groups of 4 or 5. Have the groups use the Scale of Miles on the "Map of the Long Walk" activity sheet to figure out how many miles the Navajo people walked. Check each group for accuracy.
3. Have each group create a skit depicting what it might have been like to be Navajo children during the Long Walk and imprisonment at Fort Sumner. Each group presents their skit to the rest of the class.

Closure

Have students share their views of the Long Walk with the rest of the class. Ask the students: How might modern Navajos feel about the Long Walk?

Evaluation

Make up another distance problem and have the students show that they know how to use the Scale of Miles on a map. Example: How far is it from Zuni to Canoncito?

Extensions

1. Have the students create problems using the Scale of Miles or Kilometers. Then have them exchange and compute.
2. Have a student or students write a summary report for the time line describing how the Athapaskans met their basic needs on the Long Walk.

Worksheet 7-1

THE LONG WALK

Charley Sandoval was a Navajo medicine man and livestock owner who lived in Cañoncito. He was 72 years old when he told this story which had been told to him by his grandmother and grandfather.

"My name is Charley Sandoval. The place where I live is called *Tóhajiileeh* (Cañoncito). Long ago, my late grandmother and grandfather on my father's side used to tell this story. Both of them went on the journey to *Hwéél di* (Fort Sumner).

It was the *Diné's* own fault to be rounded up. The *Diné*, using bows and arrows, had been having war with other tribes. That was the reason why they were rounded up by the military army from *Shash Bitoo'* (Fort Wingate) and driven to Fort Sumner. There the *Diné* spent five years. They cried for their own country while staying there.

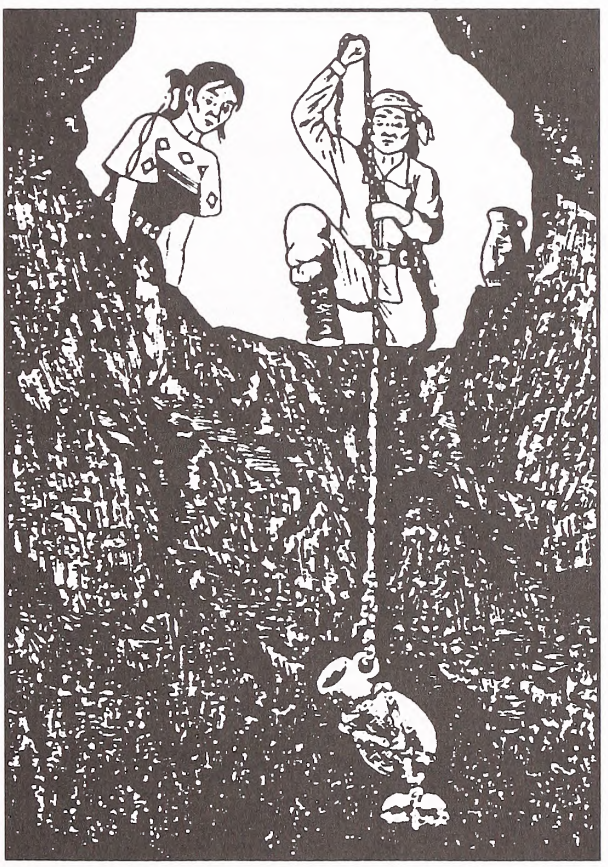
So the *Diné* promised to give up all their bad habits, and then they were released to go back to their homeland. They traveled and traveled. They spend one night south of there at a place called *Tóbi'i* (Into Water). My grandmother used to tell that they got back *Tóhajiileeh*, while the others continued to Fort Wingate and then to *Tséhootsooi* (Fort Defiance). From there the *Diné* parted and went in different directions to where they had come from.

On the journey to Fort Sumner, one Navajo man was ahead, leading, and the rest just followed. The Army escorted and watched closely so that nobody escaped. I never was told about the number of people who made the journey, but they traveled on foot. The women carried their babies on their backs. The route went through Albuquerque and from there to Fort Sumner. It was quite a long way from here. There were trees, mountains and a number of houses. Some distance away from the houses the *Diné* were kept prisoners. As I was told the story, the place was not fenced.

The *Diné* were cared from with rations, but they didn't know how to cook the things. There were green beans and flour, but the *Diné* didn't know how to make tortillas with the flour. There was bacon, too. Cooking had to be demonstrated to them. Back here, the *Diné* survived on plants such as *haasch' éédáá* (wild berries), *chiilchin* (sumac plants), *tlohdéél* (seeds of grass), *nimaasi* (wild potatoes) and *hasgaan* (yucca fruit). These were the *Diné*'s main foods during that time. At Fort Sumner the *Diné* did no planting. As I have heard it said, no ceremonies or chants took place either.

Worksheet 7-1 (cont.)

After a while, the *Diné* pleaded to go back to their country and said they were lonely for it. Also, they promised not to harm any more people. That is why they were allowed to return. It was at that time that this place was given a name. There was a big deep hole, and, at the bottom, was a spring. There was no way that a person could get down there. The *Diné* used to carry with them some sort of *tóshjee'* (water jug). They tied a braided, narrow yucca leaf rope to a jug to bring up water with; but the jug would not sink in the water. It just floated on top. So the *Diné* tied a stone to the bottom of the jug to make it sink down. That is how they fished out their water. And that's the reason this place is *Tóhajiileeh* (Cañoncito). It was named after the *Diné* had journeyed back from Fort Sumner. That is how my ancestors told their stories."



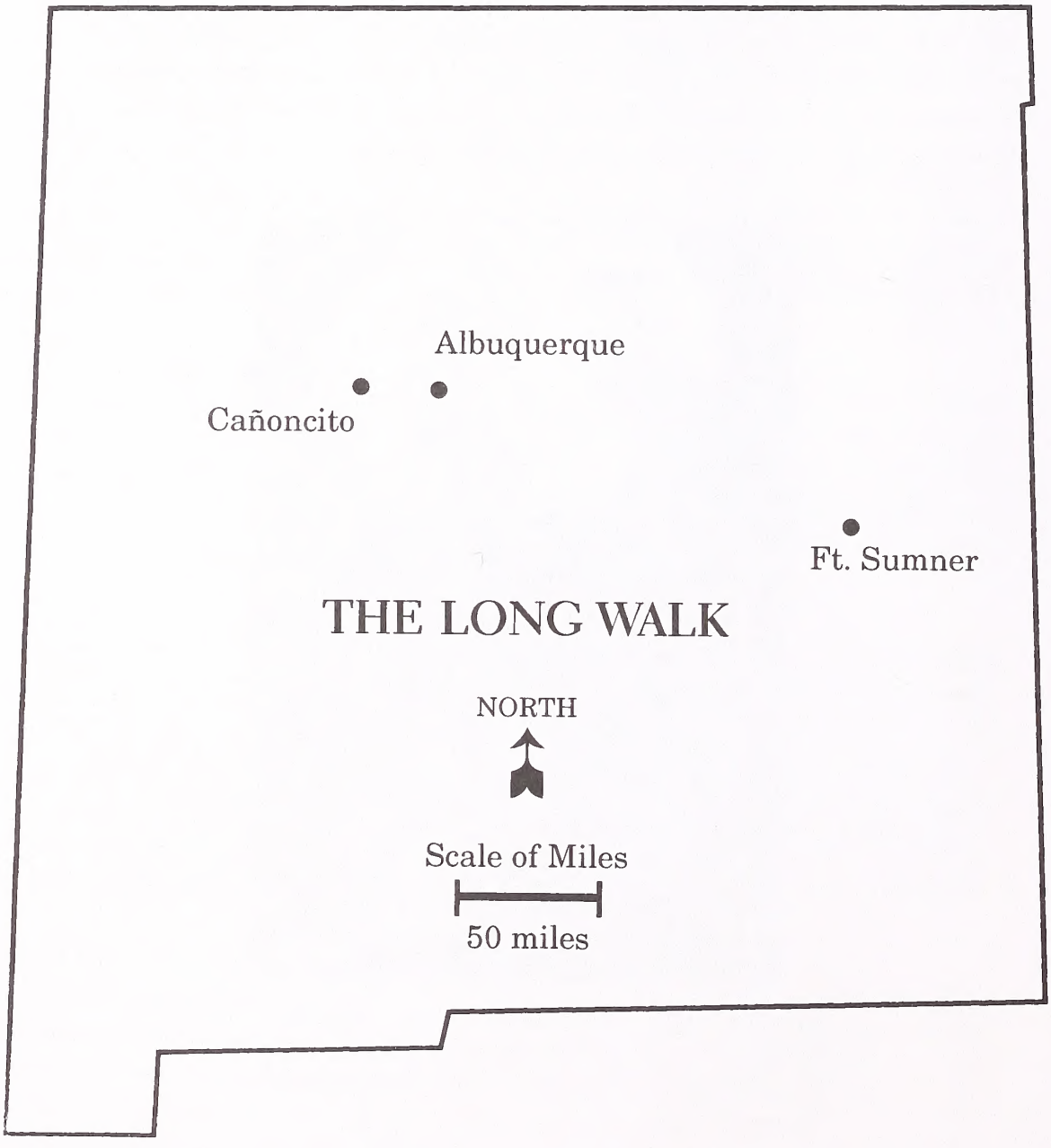
The *Diné* used a narrow rope made of yucca leaves to lower a jug to the water. When the jug first floated on the surface they tied a stone to it to make it sink.

(from ***Navajo Stories of the Long Walk***, Navajo Community Press, Tsaile, Arizona. 1973. pp.142-43)

Worksheet 7 - 2

Name _____

Date _____



My answer: _____ miles.

Appendix 2 References

Aliki
1977 *Wild and Woolly Mammoths.* Thomas Y. Crowell Company, New York.

Ambler, J. Richard
1977 *The Anasazi, Prehistoric People of the Four Corners Region.* Museum of Northern Arizona Press, Flagstaff.

Arant, Bobbie, and Alexis Hamilton (compilers)
1984 "The Archaeologist" *Anasazi Education Outreach,* Anansazi Heritage Center, Dolores, Colorado.

Bailey, Garrick, and Roberta Bailey
1986 *A History of the Navajos.* School of American Research Press, Santa Fe.

Barnett, Frank
1973 *Dictionary of Prehistoric Indian Artifacts of the American Southwest.* Northland Press, Flagstaff, Arizona.

Baylor, Byrd
1972 *When Clay Sings.* Charles Scribner's Sons, New York.

Blinman, Eric
1993 "Anasazi Pottery—Evolution of a Technology." *Expedition, The University Museum Magazine of Archaeology and Anthropology,* University of Pennsylvania. Vol. 35, No. 1.

Brody, J. J.
1977 *Mimbres Painted Pottery.* A School of American Research Book, University of New Mexico Press, Albuquerque.

1990 *The Anasazi, Ancient Indian People of the American Southwest.* Rizzoli, New York.

Brugge, David
1983 "Navajo Prehistory and History to 1850." *Handbook of North American Indians,* Vol. 10, *Southwest.* Edited by Alfonso Ortiz. Smithsonian Institution, Washington D.C.

Cameron, Catherine M.
1990 "The Effects of Varying Estimates of Pit Structure Use-life on Prehistoric Population Estimates in the American Southwest." *Kiva* 55(2):155-166.The Arizona Archaeological and Historical Society.

☐ **Cordell, Linda S.**
1984 *Prehistory of the Southwest*. Academic Press, New York.

☐ **Creamer, Winifred, with Catherine M. Cameron and John Beal**
in press *The Architecture of Arroyo Hondo*. School of American Research, Santa Fe.

☐ **Daniels, George G.** (editor)
1976 *The Spanish West*. Time-Life Books, Alexandria, Virginia.

☐ **Dittert, Alfred E., Jr., and Fred Plog**
1980 *Generations in Clay: Pueblo Pottery of the American Southwest*. Northland Press, Flagstaff, Arizona.

☐ **Eddy, Frank W.**
1966 *Prehistory in the Navajo Reservoir District, Northwestern New Mexico*. Museum of New Mexico Papers in Anthropology No. 15. Museum of New Mexico Press, Santa Fe.

☐ **Ferguson, T.J. and E. Richard Hart**
1985 *A Zuni Atlas*. Universtiy of Oklahoma Press, Norman, Oklahoma.

☐ **Ferguson, William M. and Arthur H. Rohn**
1990 *Anasazi Ruins of the Southwest in Color*. University of New Mexico Press, Albuquerque, New Mexico.

☐ **Elthing, Mary and Franklin Folsom**
1972 *The Wild Mammoth Hunters*. Scholastic Book Services, New York.

☐ **Fewkes, J. Walter**
1989 *The Mimbres Art and Archaeology*. Avanyu Publishing, Inc., Albuquerque, New Mexico.

☐ **Folsom, Franklin**
1974 *An Amateur's Bonanza: Discovery of Early Man in North America*. American West.

☐ **Geib, Phil R.**
1990 "A Basketmaker II Wooden Tool Cache from Lower Glen Canyon." *Kiva* 55(3):265-278, The Arizona Archaeological and Historical Society.

☐ **Gilman, Patricia**
1987 *Architecture as Artifact: Pit Structures and Pueblos in the American Southwest*. American Antiquity 52:538-564.

Haury, Emil W.
1986 *The Mogollon Culture of Southwestern New Mexico.* Emil Haury's Prehistory of the American Southwest, edited by J. Jefferson Reid and David E. Doyel. University of Arizona Press, Tucson.

Houck, Rose
1992 *Anasazi.* Southwest Parks and Monuments Association, Tucson, Arizona.

1992 *Mogollon.* Southwest Parks and Monuments Association, Tucson, Arizona.

Jett, Stephen C. and Peter B. Moyle
1986 "The Exotic Origins of Fishes Depicted on Prehistoric Mimbres Pottery From New Mexico." *American Antiquity* 51(4):688-720.

Kessell, John L.
1979 *Kiva, Cross, and Crown: The Pecos Indians and New Mexico 1540–1840.* National Park Service, U. S. Department of the Interior, Washington D. C.

LeBlanc, Steven A.
1983 *The Mimbres People, Ancient Pueblo Painters of the American Southwest.* Thames and Hudson, London.

Lekson, Stephen H.
1984 *Great Pueblo Architecture of Chaco Canyon, New Mexico.* University of New Mexico Press, Albuquerque.

1988 "The Idea of the Kiva in Anasazi Archaeology." *Kiva* 53(3):213-234, The Arizona Archaeological and Historical Society.

1990 "The Southwest's Remarkable Mimbres People." *Archaeology* 43(6):44-48.

Lekson, Stephen H., Thomas C. Windes, John R. Stein, and W. James Judge
1988 "The Chaco Canyon Community." *Scientific American* 259(1):100-109.

Levy, Judith S., (editor)
1989 *Macmillan Dictionary for Children.* Macmillan Publishing Company, New York.

Lightfoot, Ricky R. and Mary C. Etzkorn, ed.
1993 *The Duckfoot Site, Volume 1, Descriptive Archaeology.* Occasional Paper No. 3, Crow Canyon Archaeological Center, Cortez, Colorado.

Lister, Robert H. and Lister, Florence C.
1981 *Chaco Canyon.* University of New Mexico Press, Albuquerque.

☐ **Madsen, R.G. and Brian Chisholm**
"Basketmaker II Subsistence: Carbon Isotopes and Other Dietary Indicators from Cedar Mesa, Utah." *American Antiquity* 56(3):444-459.

☐ **Marshall, Michael P., John R. Stein, Richard W. Loose, and Judith E. Novotny**
1979 *Anasazi Communities of the San Juan Basin.* Public Service Company of New Mexico and the Historic Preservation Bureau, Planning Division, Department of Finance and Administration, Santa Fe.

☐ **Mathien, Frances Joan**
1984 *Social and Economic Implications of Jewelry Items of the Chaco Anasazi.* Recent Research on Chaco Prehistory. Reports of the Chaco Center, Number Eight. Division of Cultural Research, National Park Service, Albuquerque.

☐ **Matson, R.G.**
1991 *The Origins of Southwestern Agriculture.* The University of Arizona Press, Tucson, Arizona.

☐ **Melody, Michael E.**
1989 *The Apache. Indians of North America.* Chelsea House Publishers, New York.

☐ **Mogilner, Alijandra**
1992 *Children's Writer's Word Book.* Writer's Digest Books, Cincinnati, Ohio.

☐ **Mongomery, Gordon and Smith, Watson and Brew, John Otis**
1949 *Franciscan Awatovi.* Peabody Museum, Cambridge, Massachusetts.

☐ **Morris, Earl H. and Robert F. Burgh**
1954 *Basket Maker II Sites Near Durango, Colorado.* Publication 604, Carnegie Institution of Washington, Washington, D.C.

☐ **Noble, David Grant** (editor)
1989 *Santa Fe: History of an Ancient City.* School of American Research Press, Santa Fe, New Mexico.

☐ **Opler, Morris E.**
1941 *An Apache Life-Way.* The University of Chicago Press, Chicago.

☐ **Powers, Robert P., William B. Gillespie, and Stephen H. Lekson**
1983 *The Outlier Survey, A Regional View of Settlement in the San Juan Basin.* Reports of the Chaco Center Number Three, NPS Division of Cultural Research, Albuquerque.

☐ **Roberts, Alexandra**
1990 *Navajo Ethno-History and Archaeology.* The Wupatki Archaeological Inventory Survey Project: Final Report, compiled by Bruce A. Anderson, pp. 6-1 through 6-115. Southwest Cultural Resources Center, Division of Anthropology Professional Paper No. 35. USDI National Park Service, Southwest Region. U.S. Government Printing Office, Washington, D.C.

☐ **Roessel, Ruth** (editor)
1973 *Navajo Stories of the Long Walk,* Navajo Community College Press, Tsaile, Arizona.

☐ **Russell, George**
1995 *American Indian Digest.* Thunderbird Enterprises, Phoenix, Arizona.

☐ **Simmons, Marc**
1979 "History of the Pueblos Since 1821." *Handbook of North American Indians,* Vol. 9, *Southwest.* Edited by Alfonso Ortiz. Smithsonian Institution, Washington D.C.

☐ **Stuart, David E. and Rory P. Gauthier**
1981 *Prehistoric New Mexico, Background for Survey.* Historic Preservation Bureau, Department of Finance and Administration, Santa Fe.

☐ **Thrapp, Dan L.**
1974 *Victorio and the Mimbres Apaches.* The University of Oklahoma Press.

☐ **Toll, H. Wolcott**
1991 "Patterns of Basketmaker III Occupation in the La Plata Valley, New Mexico." Presented to the 56th Annual Meeting of the Society for American Archaeology, New Orleans.

☐ **Watson, Don**
nd *Indians of the Mesa Verde.* Mesa Verde Museum Association, Mesa Verde National Park, Colorado.

☐ **Wheat, Joe Ben**
1987 *A Paleo-Indian Bison Kill.*

☐ **Wills, W. H.**
1988 *Early Prehistoric Agriculture in the American Southwest.* School of American Research Press, Santa Fe.

☐ **Wills, W. H. and Thomas C. Windes**
1989 "Evidence for Population Aggregation and Dispersal During the Basketmaker III Period in Chaco Canyon, New Mexico." *American Antiquity.* 54(2):347-369.

☐ **Wilshusen, Richard H.**
1986 "The Relationship Between Abandonment Mode and Ritual Use in Pueblo I Anasazi Protokivas." *Journal of Field Archaeology* 13:245-254.

☐ **Wilshusen, Richard H. and Eric Blinman**
1992 "Pueblo I Village Formation: A Reevaluation of Sites Recorded by Earl Morris on Ute Mountain Ute Tribal Lands." *Kiva* 57(3):251-270, The Arizona Archaeological and Historical Society.

☐ **Wormington, H. M.**
1966 *Prehistoric Indians of the Southwest.* The Denver Museum of Natural History, Denver, Colorado.

Appendix 3 Resources for Teachers

Museums and Places to Visit

- Museums
- Traveling Exhibits
- State and Federal Parks and Monuments
- Other Places to Go and See
- Universities

Public Participation and Outdoor Classroom Programs

- Teacher Workshops and School Outreach Programs
- Other Programs

Agencies and Groups

- Bureau of Land Management
- National Forest Service
- Native American Groups
- Amateur Archaeological Societies
- Archaeological Consultants

Suggested Reading

- Fiction
- Nonfiction and Books on New Mexico Archaeology, Anthropology and History
- Stories and Legends

Resource Guides ❖ Teaching Manuals ❖ Lesson Plans

Classroom Activities ❖ Teaching Kits ❖ Resource Guides

Audio-Visuals

- Video, Slide & Film Programs
- Computer Simulations
- Games
- Audio Programs

Museums and Places to Visit

Many of these museums, sites, parks, and monuments have educational programs or provide school tours.

MUSEUMS

☐ **Acoma Pueblo Museum**

PO Box 309
Pueblo of Acoma, New Mexico 87034
505-552-6604
Indian pottery and history exhibits dating from ca. 1440 to the present.

☐ **Albuquerque Museum**
2000 Mountain Road, NW
Albuquerque, New Mexico 87104
505-243-7255
Houses the nation's largest collection of Spanish Colonial artifacts.

☐ **Antonio Sanchez Cultural Center**
Las Vegas, New Mexico 87701
505-425-8829
Local history.

☐ **Artesia Historical Museum and Art Center**
505 Richardson Ave.
Artesia, New Mexico 88210
505-748-2390
Local history exhibits.

☐ **Aztec Museum**
125 North Main
Aztec, New Mexico 87410
505-334-9829
Indian artifacts, pioneer history exhibits.

☐ **Bicentennial Log Cabin**
671 North Main
Las Cruces, New Mexico 88001
505-524-1422
Pioneer artifacts and furniture.

☐ **Billy the Kid Museum**
1601 East Sumner Ave.
Fort Sumner, New Mexico 88119
505-355-2380
Besides Billy the Kid items, also has cowboy memorabilia dating to the 1880s.

☐ **Black Range Museum**
Main Street
Hillsboro, New Mexico 88042
505-895-5233
Gold mining artifacts from 1875-1900.

☐ **Blackwater Draw Museum**
Portales, New Mexico 88130
505-562-2254
East of Eastern New Mexico University. Anthropological exhibits.

☐ **Bond House Museum**
710 Bond
Espanola, New Mexico 87532
505-753-2377
Local art and history exhibits.

☐ **Bradbury Science Museum**
15th and Central
Los Alamos, New Mexico 87544
505-667-4444
History of nuclear technology.

☐ **Branigan Cultural Center**
106 West Hadley
Las Cruces, New Mexico 88001
505-524-1422
History exhibits.

☐ **Callihan's Auto Museum**
410 Cedar Street
Truth or Consequences, New Mexico 87901
505-894-6900
Autos from the 1920s through the 1960s and associated automobilia.

☐ **Carlsbad Museum and Art Center**
418 West Fox
Carlsbad, New Mexico 88220
505-887-0267
Local history exhibits.

☐ **Chavez County Historical Museum**
200 North Lea
Roswell, New Mexico 88201
505-622-8333
Local history exhibits.

☐ **Cleveland Roller Mill Museum**
Mora, New Mexico 87732
505-387-2645
Operable pre-World War II flour mill and associated artifacts.

☐ **Cloudcroft Historical Museum**
PO Box 125
Cloudcroft, New Mexico 88317
505-682-2733
Local history exhibits dating from 1880.

☐ **Columbus Historical Museum**
PO Box 562
Columbus, New Mexico 88029
505-531-2620
Local history exhibits housed in Southern Pacific Railroad depot.

☐ **Confederate Air Force Museum**
Lea County Airport
Hobbs, New Mexico 88240
505-392-5342
World War II aircraft and memorabilia.

☐ **Deming Luna Mimbres Museum**
301 South Silver
Deming, New Mexico 88030
505-546-2382
Frontier history and Mimbres Indian exhibits.

☐ **Dorsey Mansion**
Springer, New Mexico 87747
505-375-2222
Two-story log and stone home built by 1800s cattlemen.

☐ **El Rancho de los Golondrinas**
Rt. 14, Box 214
La Cienega, New Mexico 87501
505-471-2261
Spanish Colonial living history and architecture museum.

☐ **Ernie Pyle Memorial Branch Library**
900 Girard, SE
Albuquerque, New Mexico 87106
505-256-2065
1940s World War II correspondent memorabilia.

☐ **Eula Mae Edwards Museum and Gallery**
Clovis Community College
417 Schepps Blvd.
Clovis, New Mexico 88101
505-769-4012
Prehistoric artifacts.

☐ **Farmington Historical Museum**
302 North Orchard
Farmington, New Mexico 87401
505-599-1174
Four Corners area history. Includes children's gallery.

☐ **Florence Hawley Ellis Museum of Anthropology**
Ghost Ranch
Abiquiu, New Mexico 87510
505-685-4333
Anthropology of Native American and Spanish cultures, history exhibits.

☐ **Folsom Museum**
Main Street
Folsom, New Mexico 88419
505-278-2155
Location of the PaleoIndian bison kill site dating 12,000 B.C.

☐ **Fort Burgwin Research Center**
PO Box 300
Ranchos de Taos, New Mexico 87557
505-758-8322 or *214-768-2940*
History exhibits housed in reconstructed calvary fort dating from 1850s. Site tours of field school excavations also available.

☐ **Gadsden Museum**
PO Box 147
La Mesilla, New Mexico 88046
505-526-6293
Indian and Spanish artifacts, local history exhibits.

☐ **Gateway to the Past Museum**
Ghost Ranch Living Museum
Abiquiu, New Mexico 87510
505-685-4312
Local history exhibits and cultural heritage programs and hands-on exhibits.

☐ **General Douglas L. McBride Museum**
New Mexico Military Institute
Roswell, New Mexico 88210
505-622-6250
US military history exhibits, featuring Bataan Death March memorabilia.

☐ **Geronimo Springs Museum**
211 Main Street
Truth or Consequences, New Mexico 87901
505-894-6600
Local history.

☐ **Governor Bent Home and Museum**
117A Bent Street
Taos, New Mexico 87571
505-758-2376
Frontier artifacts housed in Territorial-era adobe.

☐ **Grants Chamber of Commerce Museum**
100 North Iron Ave.
Grants, New Mexico 87020
505-287-4802
Indian artifacts, local history, simulated uranium mine.

☐ **H. A. "Pappy" Thornton Homestead and Museum**
Ned Houk Park
Clovis, New Mexico 88101
Antique farming equipment, examples of prairie farmhouse and dugout cabin.

☐ **Herzstein Memorial Museum**
Second and Walnut
Clayton, New Mexico 88415
505-374-9508
Regional history and Santa Fe Trail artifacts.

☐ **Holy Cross Catholic Church**
Santa Cruz, New Mexico 87567
505-753-3345
Historic church built in 1733 with Spanish Colonial era religious artifacts.

☐ **Jicarilla Apache Museum and Arts and Crafts Center**
Dulce, New Mexico 87528
505-759-3242, ext. *274*
Museum of Apache basketry and pottery.

☐ **John Lewis' Antique Typewriter Museum**
4805 Menaul Blvd. NE
Albuquerque, New Mexico 87110
505-884-0600
Featuring an assortment of antique typewriters and memorabilia.

☐ **Kit Carson Home and Museum**
East Kit Carson Rd.
Taos, New Mexico 87571
505-758-4741
Within Kit Carson's house, museum includes exhibits of all periods of Taos history and prehistory.

☐ **Kit Carson Museum**
Philmont Scout Ranch
Cimarron, New Mexico 87714
505-376-2281
Replica of 1849 adobe hacienda of Carson.

☐ **Laboratory of Anthropology**
708 Camino Lejo
Santa Fe, New Mexico 87505
505-827-8941
Research facility for Native American anthropology.

☐ **Lea County Cowboy Hall of Fame and Western Heritage Center**
New Mexico Junior College Campus
5317 Lovington Hwy.
Hobbs, New Mexico 88240
505-392-1275 and *505-392-5518*
Exhibits from early man to pioneering times, honors ranching and rodeo.

☐ **Lea County Museum**
103 South Love
Lovington, New Mexico 88260
505-396-5311
Local history exhibits and pioneer family mementos. Housed in 1918 hotel.

☐ **Linam Ranch Museum**
Hobbs, New Mexico 88240
505-393-4784
West of Lea County Airport.
Indian artifacts and pioneer mementos.

☐ **Lincoln County Heritage Trust Historical Center Museum**
Hondo, New Mexico 88336
505-653-4025
Exhibits on Billy the Kid, 1878 Lincoln County War, cowboys, Apaches, Buffalo soldiers. See enactment of The Last Escape of Billy the Kid.

☐ **Los Alamos County Historical Museum**
1921 Juniper
Los Alamos, New Mexico 87544
505-662-4493
Local history, including exhibits on the Manhattan Project plus a current exhibit on the World War II Japanese Internment period in New Mexico.

☐ **Los Colores**
4499 Corrales Rd.
Corrales, New Mexico 87048
505-898-5077
Features exhibits and demonstrations of Mexican and New Mexican weaving traditions.

☐ **Martinez Hacienda**
Ranchito Rd. (Hwy 240)
Taos, New Mexico 87571
505-758-1000
1800s Spanish Colonial period home. Includes living history demonstrations on Hispanic culture.

☐ **Maxwell Museum of Anthropology**
University of New Mexico
Bldg. 11
Albuquerque, New Mexico 87106
505-277-4405
Emphasis on native southwest cultures: Mimbres and Pueblo pottery, basketry, and kachinas.

☐ **McKee, Carson Museum**
309 West Main Street
Farmington, New Mexico 87401
505-327-1347
Historic artifacts from around the world.

☐ **Millicent Rogers Museum**
Taos, New Mexico 87571
505-758-2462
Includes an extensive collection of Native American jewelry, pottery, textiles, basketry and paintings.

☐ **Million Dollar Museum**
Main Street
White's City, New Mexico 88268
505-758-2291
Local history including first car west of Pecos, guns, and artifacts.

☐ **Mogollon Museum**
Mogollon, New Mexico 88039
North of Silver City.
Local history and mining artifacts.

☐ **Moriarty Historical Society Museum**
777 Central SW
Moriarty, New Mexico 87035
505-832-4764
Old US Rte. 66.
Local history featuring Territorial period exhibits.

☐ **Museum of the Catholic Church in New Mexico**
223 Cathedral Place
Santa Fe, New Mexico 87501
505-983-3811
Exhibits material tracing the development and role of the Catholic Church in New Mexico.

☐ **Museum of the Horse**
PO Box 40
Ruidoso Downs, New Mexico 88346
505-378-4142
Traces the history of the horse in North America. Also includes exhibits on carriages, wagons, and livery tack.

☐ **Museum of Indian Arts and Culture**
710 Camino Lejo
Santa Fe, New Mexico 87505
505-827-6344
Standing exhibits of various Native American arts and crafts, demonstrations, changing exhibits.

☐ **Museum of International Folk Art**
706 Camino Lejo
Santa Fe, New Mexico 87505
505-827-6350
Standing and changing exhibits on other cultures of New Mexico besides Native Americans and Hispanics.

☐ **New Mexico Museum of Military History**
800 Rio Grande Blvd., NW
Sheraton Old Town Place, Suite 21
Albuquerque, New Mexico 87104
505-243-2238
Artifacts from Civil War to Desert Storm.

☐ **New Mexico Museum of Natural History and Science**
1801 Mountain Rd., NW
Albuquerque, New Mexico 87104
505-841-8837 or *505-841-8838*
Often includes exhibits and demonstrations on New Mexico culture and prehistory.

☐ **New Mexico State University Museum**
New Mexico State University Campus
Las Cruces, New Mexico 88001
505-646-3739
Southwest archaeology and history exhibits.

☐ **Old Church of Santo Nino Museum**
Tijeras, New Mexico 87059
Local history exhibits housed in 1929 church.

☐ **Old Coal Mine Museum**
Main Street
Madrid, New Mexico 87010
505-473-0743
South of Santa Fe on route 14.
Museum of 1800s coal mine and mining company headquarters.

☐ **Old Fort Sumner Museum**
Billy the Kid Rd.
Fort Sumner, New Mexico 88119
505-355-2942
Cowboy and military memorabilia of 1860-1890. Location of Billy the Kid gravesite.

☐ **Old Mill Museum**
Cimarron, New Mexico 87714
505-376-2466
Regional history museum in 1864 grist mill built by land baron Lucien Maxwell.

☐ **Otero County Historical Museum**
Alamogordo, New Mexico 88311
505-437-6120
Historical museum of Tularosa Basin.

☐ **Our Lady of Sorrows Church**
Bernalillo, New Mexico 87004
505-867-5333
Historic church with museum.

☐ **Palace of the Governors**
Santa Fe, New Mexico 87501
505-827-6391
Plaza downtown.
Built in 1610, it is the oldest public building in the US. It houses the history collections of the Museum of New Mexico.

☐ **Percha Valley Bank Museum**
Kingston, New Mexico 87931
Twenty-two miles south of Truth or Consequences on route 152.
Mining artifacts and antiques.

☐ **Pinos Altos Museum**
Main Street
Pinos Altos, New Mexico 88053
505-388-1882
Local artifacts.

☐ **Poeh Center Museum of Pojoaque Pueblo**
Pueblo of Pojoaque
Rte. 11
Pojoaque, New Mexico 87501
505-455-3334
A cultural center dedicated to revitalizing Pueblo culture, teaching classes in traditional song, dance, and costume-making; features exhibits of Tewa artifacts.

☐ **Pueblo House Children's Museum**
2401 12th Street, NW
Albuquerque, New Mexico 87102
505-843-7270
At the Indian Pueblo Cultural Center, includes hands-on Native American exhibits

☐ **Raton Museum of Arts and Natural History**
216 South First
Raton, New Mexico 87740
505-445-8979
Mining, railroad, and ranching artifacts.

☐ **Red Rock Museum**
Red Rock State Park
Church Rock, New Mexico 87311
505-863-1337
Local history and prehistory exhibits, Anasazi and Athabaskan; hosts Inter-Tribal Indian Ceremonial in August.

☐ **Roosevelt County Historical Museum**
Eastern New Mexico University Campus
Portales, New Mexico 88130
505-562-2840
County history and ranching exhibits

☐ **Rough Riders Memorial and City Museum**
727 Grand Ave.
Las Vegas, New Mexico 87701
505-425-8726
Rough Rider memorabilia, Indian artifacts, local history.

☐ **Sacramento Mountains Historical Society Museum**
Cloudcroft, New Mexico 88317
505-682-2958 or *505-682-2932*
Pioneer and railroad artifacts housed in restored log cabin.

☐ **Salmon Ruins and Heritage Park**
Bloomfield, New Mexico 87134
505-632-2013
Eleventh century pueblo ruins, historic buildings. Park sponsors educational workshops and programs for schoolchildren.

☐ **San Juan Archaeological Research Center and Library**
Bloomfield, New Mexico 87134
505-632-2013
Features exhibits, artifacts, and records from excavations at Salmon Ruin.

☐ **Santa Fe Children's Museum**
1050 Old Pecos Trail
Santa Fe, New Mexico 87501
505-989-8359
Often includes various cultural arts and crafts demonstrations.

☐ **Santa Fe Trail Museum**
Maxwell Street
Springer, New Mexico 87747
505-483-2341
Trail history exhibits, pioneer artifacts. Housed in former county courthouse built in 1879.

☐ **School of American Research/Indian Arts Research Center**
660 Garcia Street
Santa Fe, New Mexico 87501
505-982-3584
Research center of prehistoric and contemporary arts and crafts with tours of facility available.

☐ **Silver City Museum**
312 West Broadway
Silver City, New Mexico 88061
505-538-5921
Regional history and mining exhibits, Victorian furnishings, Indian artifacts.

☐ **Spanish History Museum**
2221 Lead, SE
Albuquerque, New Mexico 87106
505-268-9981
Hispanic history exhibits.

☐ **Tall Pines Museum**
PO Box 567
Red River, New Mexico 87558
505-754-2241
History, mining exhibits housed in pioneer cabin.

☐ **Telephone Pioneers of America Museum**
201 Third Street, SW
Room 710
Albuquerque, New Mexico 87102
505-245-5883
Telephone instruments and equipment dating from 1876 to the present.

☐ **Thelma A. Webber Southwest Heritage Room**
Hobbs, New Mexico 88240
505-392-6561, ext.315
Includes artifacts of Prehistoric Indians, early settlers, ranches and oil fields.

☐ **Tinkertown Museum**
121 Sandia Crest Rd.
PO Box 303
Sandia Park, New Mexico 87047
505-281-5233
Houses miniature mechanical shows popular in the US in the 1940s and 50s, shows such as small circuses and farms.

☐ **Red Rock Museum**
Red Rock State Park
Church Rock, New Mexico 87311
505-863-1337
Local history and prehistory exhibits, Anasazi and Athabaskan; hosts Inter-Tribal Indian Ceremonial in August.

☐ **Roosevelt County Historical Museum**
Eastern New Mexico University Campus
Portales, New Mexico 88130
505-562-2840
County history and ranching exhibits

☐ **Rough Riders Memorial and City Museum**
727 Grand Ave.
Las Vegas, New Mexico 87701
505-425-8726
Rough Rider memorabilia, Indian artifacts, local history.

☐ **Sacramento Mountains Historical Society Museum**
Cloudcroft, New Mexico 88317
505-682-2958 or *505-682-2932*
Pioneer and railroad artifacts housed in restored log cabin.

☐ **Salmon Ruins and Heritage Park**
Bloomfield, New Mexico 87134
505-632-2013
Eleventh century pueblo ruins, historic buildings. Park sponsors educational workshops and programs for schoolchildren.

☐ **San Juan Archaeological Research Center and Library**
Bloomfield, New Mexico 87134
505-632-2013
Features exhibits, artifacts, and records from excavations at Salmon Ruin.

☐ **Santa Fe Children's Museum**
1050 Old Pecos Trail
Santa Fe, New Mexico 87501
505-989-8359
Often includes various cultural arts and crafts demonstrations.

☐ **Santa Fe Trail Museum**
Maxwell Street
Springer, New Mexico 87747
505-483-2341
Trail history exhibits, pioneer artifacts. Housed in former county courthouse built in 1879.

☐ **School of American Research/Indian Arts Research Center**
660 Garcia Street
Santa Fe, New Mexico 87501
505-982-3584
Research center of prehistoric and contemporary arts and crafts with tours of facility available.

☐ **Silver City Museum**
312 West Broadway
Silver City, New Mexico 88061
505-538-5921
Regional history and mining exhibits, Victorian furnishings, Indian artifacts.

☐ **Spanish History Museum**
2221 Lead, SE
Albuquerque, New Mexico 87106
505-268-9981
Hispanic history exhibits.

☐ **Tall Pines Museum**
PO Box 567
Red River, New Mexico 87558
505-754-2241
History, mining exhibits housed in pioneer cabin.

☐ **Telephone Pioneers of America Museum**
201 Third Street, SW
Room 710
Albuquerque, New Mexico 87102
505-245-5883
Telephone instruments and equipment dating from 1876 to the present.

☐ **Thelma A. Webber Southwest Heritage Room**
Hobbs, New Mexico 88240
505-392-6561, ext.*315*
Includes artifacts of Prehistoric Indians, early settlers, ranches and oil fields.

☐ **Tinkertown Museum**
121 Sandia Crest Rd.
PO Box 303
Sandia Park, New Mexico 87047
505-281-5233
Houses miniature mechanical shows popular in the US in the 1940s and 50s, shows such as small circuses and farms.

☐ **Tome Parish Museum**
Tome, New Mexico 87060
505-865-7497
Local religious history exhibit.

☐ **Tucumcari Historical Museum**
416 South Adams
Tucumcari, New Mexico 88401
505-461-4201
Farming and ranching exhibits, Indian artifacts, early town memorabilia.

☐ **Tularosa Basin Historical Museum**
1301 North White Sands Blvd.
Alamogordo, New Mexico 88310
505-585-2057
Local history exhibits and Indian artifacts.

☐ **Union County Historical Society**
23 South 2nd
Clayton, New Mexico 88415
505-374-2977

☐ **War Eagles Air Museum**
Santa Teresa, New Mexico 88008
505-589-2000
WWII and Korean Conflict jets and planes and antique automobiles.

☐ **Western New Mexico University Museum**
PO Box 680
Western New Mexico University, New Mexico Fleming Hall
Silver City, New Mexico 88061
505-538-6386
Houses largest permanent exhibit of Mimbres pottery in the US. Also features Hispanic folk art.

☐ **Wheelwright Museum of the American Indian**
704 Camino Lejo
Santa Fe, New Mexico 87505
505-982-4636
Includes exhibits of predominantly Athapaskan arts and crafts.

☐ **Winnie's Museum Park**
Red River, New Mexico 87558
505-754-6404
Historic artifacts from Raton to Red River, housed in 1900s cabin.

TRAVELING EXHIBITS

☐ **Adventures in the Past**
Stephen Fosberg
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
(1991) A national Bureau of Land Management exhibit highlighting the opportunities for public participation and enjoyment of cultural resources on public lands.

☐ ****Boots and Saddles**
Stephen Fosberg
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
(1988) A display explaining the history of 19th century military forts in New Mexico Territory. (A slide program also is available.)

☐ ****Feather Cave**
Stephen Fosberg
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
(1993) An exhibit on perishable artifacts from Feather Cave by the University of New Mexico in the 1960s.

☐ **Heritage Preservation**
Judy Chetwin
National Park Service
PO Box 728
Santa Fe, New Mexico 87504-0728
505-988-6828
A 3-dimensional wall collage of black-and-white photographs interspersed with blocks of text featuring archaeology, preservation, laws, photographic documentation, replications, zoning for protection, education, maintenance, and restoration. Overall size is 3' × 3'. Borrowers will be responsible for the cost of shipping to the next destination. (Call for availability.)

☐ **La Plata Mine**
Stephen Fosberg
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
(1990) An exhibit featuring text, artifacts, and photographs of data recovered in the face of mining coal.

☐ **Pueblitos of Dinetah**
Stephen Fosberg
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
(1989). An exhibit featuring large photo murals of Navajo Pueblitos.

☐ **Traveling Exhibits from the Smithsonian Institution Traveling Exhibition Service**
Smithsonian Institution Traveling Exhibition Service
Washington, D.C. 20560
202-357-3168
Call for the availability of the four SITES exhibits listed below.

- **After the Revolution, Everyday Life in America, 1780-1800**. Contains 36 text panels requiring 120 running feet, weighing 900 lb., and shipped in 4 crates. Exhibition period is 4 weeks and requires limited security while on display. Fee is $800. (SITES)

- **Family Folklore**. Contains 20 photo panels, requiring 75 running feet, weighing 250 lb., and shipped in 2 crates. Exhibition period is 4 weeks and requires limited security while on display. Fee is $950. (SITES)

- **Fred E. Miller: Photographer of the Crows.** Contains 104 framed photographs with labels, 3 text panels, and 14 explanatory labels. Exhibit is 425 running feet, weights 1,700 lb., and is shipped in 5 crates. Exhibition period is 6 weeks and requires moderate security while on display. Fee is $1,525. (SITES)

- **Try this On. Connecting, History, Clothing, and Social Identity.** Contains 20 photo panels, 5-6 interactive devices, and approximately 25 artifacts. Exhibit requires 1,500 square feet (est.) and is loaned for a 6-week exhibition period. Moderate security is necessary while on display. Fee is $1,500-$2,000 (est.). (SITES)

STATE AND FEDERAL PARKS AND MONUMENTS

Each culturally-oriented unit in the National Park system has its own brochure, sometimes several. A selection can be mailed upon request and the recipient is free to photocopy them for distribution to students.

For information on state parks, contact their main office:

☐ **Monuments—Central Office**
116 Lincoln Ave.
Santa Fe, New Mexico 87501
505-827-6334

☐ **National Park Service/Southwest Regional Office**
1100 Old Santa Fe Trail
Santa Fe, New Mexico 87505
505-988-6100

☐ **Southwest Cultural Resources Center**
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505,
Anthropology *505- 988-6766*
Branch of Cultural Research *505-988-6778*
Conservation *505-988-6796*
History *505-988-6787*
Submerged Cultural Resources Center *505-988-6750*

☐ **Abo at Salinas Pueblo Missions National Monument**
505-847-2400
Ruins of Tompiro pueblo and old Spanish mission.

☐ **Aztec Ruins National Monument**
Aztec, New Mexico 87410
505-334-6174
Twelfth century pueblo ruins, including a restored Great Kiva.

☐ **Bandelier National Monument**
505-672-3861
Anasazi ruins of pueblo and cliff dwellings.

☐ **Chaco Culture National Historical Park**
505-786-7014
"Power center" of the 1100s Anasazi world, featuring several pueblo ruins, petroglyphs, and pictographs

☐ **Coronado State Monument**
Bernalillo, New Mexico 87004
505-867-5351
Ancient ruins of Tiwa pueblo Kuaua. Includes kiva murals.

☐ **El Malpais**
Visitor Center
620 E. Santa Fe Ave.
Grants, New Mexico 87020
505-285-5406
Badlands park featuring wilderness area, exhibits on local history and prehistory.

☐ **El Morro National Monument**
505-783-4226
Ancestral Zuni pueblo ruins and Inscription Rock bearing names of Spanish explorers and settlers.

☐ **Fort Selden State Monument**
Las Cruces, New Mexico 88001
505-526-8911
Remains of nineteenth century adobe fort.

☐ **Fort Sumner State Monument**
Fort Sumner, New Mexico 88119
505-355-2573
Site of Navajo and Apache confinement in 1860s.

☐ **Fort Union National Monument**
Las Vegas, New Mexico 87701
505-425-8025
1800s fort built to guard Santa Fe Trail.

☐ **Gila Cliff Dwellings National Monument**
505-536-9461 or *505-536-9344*
Thirteenth century Mimbres and Reserve period Mogollon culture cliff dwellings and ruins.

☐ **Gran Quivera at Salinas Pueblo Missions National Monument**
505-847-2770
Tompiro pueblo ruins.

☐ **Jemez State Monument**
Jemez Springs, New Mexico 87025
505-829-3530
Ruins of Towa pueblo of Giusewa and Spanish mission of San Jose de los Jemez.

☐ **Lincoln State Monument and National Landmark**
Hondo, New Mexico 88336
505-653-4372
Restored frontier town. Location of Billy the Kid's last escape. Several museums in area, daily living history presentations in summer.

☐ **Pecos National Historical Park**
Pecos, New Mexico 87552
505-757-6032 or *505-757-6414*
Ruins of Pecos Pueblo and Spanish Mission; gateway of cultural contact between the Great Plains and the Rio Grande Valley.

☐ **Petroglyph National Monument**
Visitor Center
Albuquerque, New Mexico 87121
505-768-3316
Large collection of prehistoric rock art.

☐ **Poshuoinge**
Espanola District of Santa Fe National Forest
On US 84
Ancestral Tewa pueblo ruins; self-guided hiking trail.

☐ **Quarai at Salinas Pueblo Missions National Monument**
505-847-2290
Spanish mission dating to the 1600s and 1700s.

☐ **Salinas Pueblo Mission National Monument**
505-847-2585
Three sets of Anasazi Tompiro ruins and Spanish mission ruins at Abo, Gran Quivera, and Quarai.

OTHER PLACES TO GO AND SEE

☐ **Billy the Kid Sites**
Silver City, New Mexico 88061
800-548-9378
Visit the outlaw's family cabin and the Star Hotel where he waited tables.

☐ **Billy the Kid—Pat Garrett Historical Day**
505-355-9935
Tour sites and attend the Stinking Springs Stew Cookoff. Held on July 16th each year.

☐ **Caprock Amphitheater**
Clovis, New Mexico 88101
800-724-0500
See the outdoor summer drama, *The Real Billy the Kid.*

☐ **Chimayo Trading and Mercantile**
New Mexico Hwy 76
PO Box 460
Chimayo, New Mexico 87522
505-351-4566
Centuries old Spanish weaving center.

☐ **Dittert Site**
Bureau of Land Management visitor center on New Mexico 117.
Small Anasazi pueblo ruin outside Grants.

☐ **Glorieta Battlefield**
505-827-0312
Site of New Mexico's only Civil War battle. Reenactments held each June.

☐ **Indian Pueblo Cultural Center**
2401 12th Street, NW
Albuquerque, New Mexico 87102
505-843-7270
Houses research department of Native American cultures, hosts Native American ceremonial dances, and its collections trace the developments of Pueblo culture.

☐ **La Mesilla**
La Mesilla, New Mexico 88046
Historic Spanish village

☐ **Las Vegas Walking Tour**
Las Vegas, New Mexico 87701
800-832-5947
Downtown historic buildings, 900 on National Register of Historic Buildings.

☐ **Lions Wilderness Park Amphitheater**
Farmington, New Mexico 87401
800-448-1240
Features the summer outdoor musical drama of **Anasazi, the Ancient Ones.**

☐ **Los Ojos**
Tierra Amarilla, New Mexico 87575
Historic district reintroducing Spanish Colonial churro sheep populations and weaving practices.

☐ **Old Town**
Albuquerque's historic district.

☐ **Puye Cliff Dwellings**
Santa Clara
Pueblo, New Mexico 87532
505-753-7326
Twelfth century cliff dwellings and ruins of Anasazi.

☐ **Saint Francis Cathedral**
Downtown Santa Fe, New Mexico 87501
505-982-5619
Constructed by Archbishop Lamy in 1869.

☐ **Raton's Historic District**
Raton, New Mexico 87740
800-638-6161
Self-Guided Tour in downtown historic buildings.

☐ **Salt Mission Trails**
505-384-2418 or *505-384-2209*
Historic and scenic loop drive along east slopes of Manzanos Mountains.

☐ **San Francisco de Asis Church**
Ranchos de Taos, New Mexico 87557
505-758-2754
Ancient church built in 1815.

☐ **San Miguel Mission**
401 Old Santa Fe Trail
Santa Fe, New Mexico 87501
505-983-3974
Historic mission church, oldest in US.

☐ **San Miguel Mission**
303 Bernard
Socorro, New Mexico 87801
505-835-1620
Restored mission church, active between 1615 and 1628.

☐ **Sandia Cave**
Off New Mexico 165 east of Albuquerque.
Cave that yielded remains of PaleoIndian culture.

☐ **Santa Rita del Cobre Fort**
Silver City, New Mexico 88061
505-388-2211
Replica of Fort Webster and trading post.

☐ **Turquoise Trail**
PO Box 303
Sandia Park, New Mexico 87047
505-243-0605
Historic and scenic area on east side of Sandia Mountains.

☐ **Santuario de Chimayo**
Chimayo, New Mexico 87522
505-351-4889
Church built between 1816 and 1819, includes legendary shrine and holy mud.

☐ **Santuario de Guadelupe**
100 Guadalupe
Santa Fe, New Mexico 87501
505-988-2027
1700s mission, oldest church devoted to Our Lady of Guadalupe in US. Includes botanical garden and displays of Spanish colonial arts.

☐ **Three Rivers Petroglyph Site and Picnic Area**
Bureau of Land Management
Caballo Resource Area
1800 Marquess
Las Cruces, New Mexico 88005
505-525-8228
Extensive rock art carvings.

UNIVERSITIES

☐ **Eastern New Mexico University**
Dept. of Social and Behavioral Sciences
Portales, New Mexico 88130

☐ **New Mexico Highlands University**
Dept. of History and Political Science
Las Vegas, New Mexico 87701

☐ **New Mexico State University**
Las Cruces, New Mexico 88003

☐ **University of New Mexico**
Dept. of Anthropology
Albuquerque, New Mexico 87131

☐ **Western New Mexico University**
Silver City, New Mexico 88061

PUBLIC PARTICIPATION AND OUT-DOOR CLASSROOMS PROGRAMS

Most parks, museums and other archaeological organizations usually welcome volunteer help either in the field helping to dig or map, or in the laboratory helping to wash and process artifacts and non-artifactual samples.

☐ **Archaeological Fieldwork Opportunities Bulletin (AFOB)**
Archaeological Institute of America
675 Commonwealth Ave.
Boston, MA 02215-1401
617-353-9361
Lists excavations with opportunities for volunteers and staff, and educational programs including field schools, study tours, and museum internships. Available to the public on the first of January each year.

☐ **Archaeological Site Steward Program**
Norm Nelson
PO Box 1148
Santa Fe, New Mexico 87504
505-827-5763
Volunteers are trained to help monitor and protect archaeological sites on State Trust lands.

☐ **Archaeological Society of New Mexico Archaeological Field School**
Richard A. Bice
Archaeological Society of New Mexico
PO Box 3485
Albuquerque, New Mexico 87190-3485

☐ **Archaeological Society of New Mexico Rock Art Recording Field School**
Jay Crotty
Archaeological Society of New Mexico
PO Box 3485

Albuquerque, New Mexico 87190-3485
Includes hands-on instruction, talks, and field trips.

☐ **Museum of New Mexico Statewide Programs and Education**
PO Box 2087
Santa Fe, New Mexico 87504
505-827-6480 or *800-285-6480*
Provides museum resources to New Mexico residents unable to visit the Santa Fe museums.

☐ **New Mexico Heritage Preservation Week**
Historic Preservation Division
Villa Rivera, Room 320
228 E. Palace Ave.
Santa Fe, New Mexico 87503
505-827-6320
Includes talks, tours to archaeological sites, demonstrations, around the state. For calendar of events contact the above.

☐ **Office of Archeological Studies**
PO Box 2087
Santa Fe, New Mexico 87504
505-827-6343
Contracts with public and private entities to locate and study New Mexico archaeological sites.

☐ **Outdoor Classroom**
Dora Alvarado
Bureau of Land Management
1800 Marquess
Las Cruces, New Mexico 88001
505-525-4398
Sponsored by Las Cruces Bureau of Land Management district, includes lectures and outdoor activities that are offered by Bureau of Land Management archaeologists to students at the Aquirre Springs Campground every spring.

☐ **Passport in Time (PIT)**
Passport in Time Clearinghouse
CEHP, Inc.
PO Box 18364
Washington D.C. 20036
202-293-0922
Volunteer program sponsored by the National Forest Service, offering participation in special heritage projects, including survey, mapping, excavation, and rock art documentation. Ask to receive the PIT newsletter.

☐ **Salmon Ruin Heritage Park: Timeline Path**
Judy Stanley
San Juan County Museum Association
PO Box 125
Bloomfield, New Mexico 87413
505-632-2013
Class tours and hands-on activities, incorporating native American education curriculum in school tours.

☐ **Tijeras Pueblo Ruin**
Karen Castioni
USDA Forest Service
Sandia Ranger District
11776 Highway 337
Tijeras, New Mexico 87059
505-281-3304
Cibola National Forest Sandia Ranger District sponsors site tours and hands-on educational programs for school groups.

TEACHER WORKSHOPS AND SCHOOL OUTREACH PROGRAMS

☐ **Aztec Ruins National Monument**
PO Box 640
Aztec, New Mexico 87410
Personnel conduct teacher workshops and provide classroom presentations.

☐ **Bandelier National Monument**
Contact HCR 1, Box 1, Suite 15
Los Alamos, New Mexico 87544
505-672-3861
Talks and/or slide programs are provided in the classroom or at Bandelier on prehistoric Indians, prehistoric rock art, New Mexico arts and crafts, legends, geology, plants and plant uses, archaeology, holding onto our history, and more! Field trips also available.

☐ **Los Alamos Historical Society**
PO Box 43
Los Alamos, New Mexico 87544
Has an outreach program.

☐ **New Mexico Archaeological Council, New Mexico Archaeological Council Public Education and Awareness Committee**
PO Box 1023

Albuquerque, New Mexico 87103
Members conduct teacher workshops and provide classroom presentations through New Mexico Archaeological Council Speakers Bureau.

☐ **Office of Archaeological Studies**
Chuck Hannaford
Museum of New Mexico
PO Box 2087
Santa Fe, New Mexico 87504
505-827-6343
Personnel provide classroom programs and demonstrations, including object packets, video tapes and slide programs, education exhibits, culture learning kits, request a catalogue.

☐ **Salmon Ruin and Heritage Park**
PO Box 1235
Bloomfield, New Mexico 87413
Personnel conduct teacher workshops and provide classroom programs.

OTHER PROGRAMS

☐ **Archives of New Mexico—Records Center and Archives**
404 Montezuma
Santa Fe, New Mexico 87501
505-827-7332
or
4320 Yale Blvd. NE
Albuquerque, New Mexico 87107
505-841-4399

☐ **Clarkfield Library at the Anthropology Department, University of New Mexico**
505-277-4524
Call the anthropology department, for further information.

☐ **Laboratory of Anthropology Library**
710 Camino Lejo
Santa Fe, New Mexico 87505
505-827-6344

☐ **Maxwell Museum**
Education Division
505-277-2924
Call for information.

☐ **New Mexico Archaeological Council**
PO Box 1023
Albuquerque, New Mexico 87103

☐ **New Mexico State Library** (with a Southwest Room)
325 Don Gaspar
Santa Fe, New Mexico 87501
505-827-3800
Most public libraries have a Southwest Room. Many public libraries also have and collect archives and photos of old New Mexico.

☐ **National Park Service**
Judy Reed
PO Box 728
Santa Fe, New Mexico 87504-0728
505-820-7218
A field school situation is open for survey and excavation of a double-plaza prehistoric pueblo comprised of about 40-50 rooms. The pueblo is located near Jemez Springs, New Mexico.

☐ **Palace of the Governors History Library**
PO Box 2087
Santa Fe, New Mexico 87504
505-827-6470
Includes archives of most of New Mexico's newspapers on microfiche, as well as other archives. Call for an appointment.

☐ **Photo Archives at the History Library**
PO Box 2087
Santa Fe, New Mexico 87504
505-827-6458
Includes over 300,000 photographs of New Mexico places and people, catalogued by topic. Can be viewed by appointment.

Many public libraries also have and collect archives and photos of old New Mexico.

Other places with archives and photos are museums and historical societies, such as University of New Mexico in Albuquerque, New Mexico State University called the Rio Grande Historical Collections, University of Texas at El Paso, El Paso Public Library and the various historical societies in Deming, Roswell, Silver City and Socorro.

AGENCIES AND GROUPS

BUREAU OF LAND MANAGEMENT

The Bureau of Land Management sponsors several outreach and educational endeavors, such as teacher workshops, educational resources, and occasionally volunteer programs. Contact local Bureau of Land Management offices for information.

☐ **New Mexico State Office**
PO Box 27115
Santa Fe, New Mexico 87502-7115
505-438-7415

☐ **Albuquerque District**
435 Montano Rd. NE
Albuquerque, New Mexico 87107
505-761-8757

☐ **Caballo Resource Area**
1800 Marquess St.
Las Cruces, New Mexico 87005-3371
505-525-4398

☐ **Carlsbad Resource Area**
620 E. Greene
Carlsbad, New Mexico 88220
505-234-5272

☐ **Cuba Field Station**
PO Box 680
Cuba, New Mexico 87013
505-289-3748

☐ **Farmington District**
1235 La Plata Hwy
Farmington, New Mexico 87401-1808
505-599-6335

☐ **Las Cruces District**
1800 Marquess St.
Las Cruces, New Mexico 87005-3371
505-525-4398

☐ **Mimbres Resource Area**
1800 Marquess St.
Las Cruces, New Mexico 87005-3371
505-525-4398

☐ **Rio Puerco Resource Area**
435 Montano Rd. NE
Albuquerque, New Mexico 87107
505-761-8757

☐ **Roswell District**
1717 W. Second St.
PO Box 139
Roswell, New Mexico 88202-1397
505-627-0203

☐ **Roswell Resource Area**
5th and Richardson
Federal Bldg. #216
PO Drawer 1857
Roswell, New Mexico 88201-1856
505-624-1790

☐ **Socorro Resource Area**
198 Neal Ave., NW
Socorro, New Mexico 87801
505-835-0412

☐ **Taos Resource Area**
224 Cruz Alta Rd.
Taos, New Mexico 87571-5983
505-758-8851

NATIONAL FOREST SERVICE

The National forest Service sponsors a volunteer archaeology program called **Passports in Time**. Contact local forest districts for information.

☐ **Main Office—Public Affairs**
517 Gold Ave., SW
Albuquerque, New Mexico 87102
505-842-3292

☐ **Carson National Forest**
Forest Service Building
PO Box 558/208 Cruz Alta Rd.
Taos, New Mexico 87571
505-758-6200

- **Camino Real Ranger District**
  PO Box 68
  Penasco, New Mexico 87553
  505-587-2255

- **Canjilon Ranger District**
  PO Box 488
  Canjilon, New Mexico 87515
  505-684-2486

- **El Rito Ranger District**
  PO Box 56
  El Rito, New Mexico 87530
  505-581-4554

- **Ghost Ranch Living Museum**
  Abiquiu, New Mexico 87510
  505-685-4312

- **Jicarilla Ranger District**
  Gobernador Rte.
  Blanco, New Mexico 87412
  505-334-2876

- **Questa Ranger District**
  PO Box 110
  Questa, New Mexico 87556
  505-586-0520

- **Taos Vistor Center**
  1139 Paseo del Pueblo Sur
  Taos, New Mexico 87571
  505-758-6390

- **Tres Piedras Ranger District**
  PO Box 38
  Tres Piedras, New Mexico 87577
  505-758-8678

☐ **Cibola National Forest**
2113 Osuna Rd., NE, Suite A
Albuquerque, New Mexico 87113-1001
505-761-4650

- **Kiowa National Grassland**
  16 N. Second St.
  Clayton, New Mexico 88415
  505-374-9652

- **Magdalena Ranger District**
  PO Box 45
  Magdalena, New Mexico 87825
  505-854-2281

- **Mountainair Ranger District**
  PO Box 69
  Mountainair, New Mexico 87036-0069
  505-847-2990

- **Mt. Taylor Ranger District**
  1800 Lobo Canyon Rd.
  Grants, New Mexico 87020
  505-287-8833

- **Sandia Ranger District**
  11776 Hwy 337
  Tijeras, New Mexico 87059
  505-281-3304

☐ **Gila National Forest**
2610 N. Silver St.
Silver City, New Mexico 88061
505-388-8201

- **Black Range Ranger District**
  1804 Date St.
  PO Box 431
  Truth or Consequences, New Mexico 87901
  505-894-6677

- **Gila Cliff Dwellings Visitor Center/National Monument**
  Rte. 11, Box 100
  Silver City, New Mexico 88061
  505-536-9461 or *505-536-9488*

- **Glenwood Ranger District**
  PO Box 8
  Glenwood, New Mexico 88039
  505-539-2481

- **Luna Ranger District**
  PO Box 91
  Luna, New Mexico 87824
  505-547-2612

- **Reserve Ranger District**
  PO Box 170
  Reserve, New Mexico 87830
  505-533-6232

- **Silver City Ranger District**
  2915 Hwy. 180 East
  Silver City, New Mexico 88061
  505-538-2771

- **Wilderness Ranger District**
  PO Box 79
  Mimbres, New Mexico 88049

- **Quemado Ranger District**
  PO Box 158
  Quemado, New Mexico 87829
  505-773-4678

☐ **Lincoln National Forest**
1101 New York
Alamogordo, New Mexico 88310-6992
505-437-6030

- **Cloudcroft Ranger District**
  PO Box 288
  Cloudcroft, New Mexico 88317
  505-682-2551

- **Guadalupe Ranger District**
  Federal Bldg, Rm 159
  Carlsbad, New Mexico 88220
  505-885-4181

- **Mayhill Ranger District**
  PO Box 5
  Mayhill, New Mexico 88339
  505-687-3411

- **Smokey Bear Ranger Station**
  901 Mechem Drive
  Ruidoso, New Mexico 88345
  505-257-4095

☐ **Santa Fe National Forest**
Pinon Bldg
1220 St. Francis Dr.
PO Box 1689
Santa Fe, New Mexico 87504
505-988-6940

- **Coyote Ranger District**
  PO Box 160
  Coyote, New Mexico 87012
  505-638-5526 or *505-988-6999*

- **Cuba Ranger District**
  PO Box 130
  Cuba, New Mexico 87013
  505-289-3264 or *505-988-6997*

- **Espanola Ranger District**
  PO Box R, 222 Los Alamos Hwy.
  Espanola, New Mexico 87532
  505-753-7331 or *505-988-6993*

- **Jemez Ranger District**
  Jemez Springs, New Mexico 87025
  505-829-3535 or *505-988-6998*

- **Las Vegas Ranger District**
  1929 N. 7th St.
  Las Vegas, New Mexico 87701
  505-425-3535 or *505-988-6995*

- **Los Alamos Office**
  475 20th St. B
  Los Alamos, New Mexico 87544
  505-667-5120

- **Pecos Ranger District**
  PO Drawer 429
  Pecos, New Mexico 87552-0429
  505-757-6121 or *505-988-6996*

NATIVE AMERICAN GROUPS

Main contacts:

☐ **Office of Indian Affairs**
La Villa Rivera Bldg.
228 East Palace Ave.
Santa Fe, New Mexico 87505
505-827-6440

☐ **All Indian Pueblo Council**
PO Box 3256
Albuquerque, New Mexico 87190

☐ **Eight Northern Indian Pueblos Council, Inc.**
PO Box 969
San Juan Pueblo, New Mexico 87566
505-852-4265

☐ **Pueblo of Acoma**
PO Box 309
Acoma Pueblo, New Mexico 87034
505-552-6604

☐ **Alamo Navajo Chapter**
PO Box 383
Magdalena, New Mexico 87825

☐ **Canoncito Navajo Chapter**
PO Box 398
Canoncito, New Mexico 87026

☐ **Cochiti Pueblo**
PO Box 70
Cochiti, New Mexico 87041
505-465-2244

☐ **Isleta Pueblo**
PO Box 317
Isleta Pueblo, New Mexico 87022
505-869-3111

☐ **Jemez Pueblo**
PO Box 100
Jemez Pueblo, New Mexico 87024
505-834-7359

☐ **Jicarilla Apache Tribe**
PO Box 507
Dulce, New Mexico 87528
505-834-7359

☐ **Laguna Pueblo**
PO Box 194
Laguna Pueblo, New Mexico 87026
505-552-6654

☐ **Mescalero Apache Tribe**
PO Box 176
Mescalero, New Mexico 88340
602-721-4432

☐ **Nambe Pueblo**
Route 1, Box 117-B
Santa Fe, New Mexico 87501
505-455-2036 or *505-455-7752*

☐ **Navajo Tribal Council**
PO Box 308
Window Rock, Arizona 86515

☐ **Picuris Pueblo**
PO Box 127
Penasco, New Mexico 87553
505-587-2519 or *505-587-2043*

☐ **Pojoaque Pueblo**
Route 11, Box 71
Santa Fe, New Mexico 87501
505-455-2278

☐ **Ramah Navajo Chapter**
Route 2, Box 13
Ramah, New Mexico 87321

☐ **San Felipe Pueblo**
PO Box A
San Felipe Pueblo, New Mexico 87001
505-867-3381

☐ **San Ildefonso Pueblo**
Route 5, Box 315-A
Santa Fe, New Mexico 87501
505-455-2273

☐ **San Juan Pueblo**
PO Box 1099
San Juan Pueblo, New Mexico 87566
505-852-4400

☐ **Sandia Pueblo**
PO Box 6088
Bernalillo, New Mexico 87004
505-867-3317

☐ **Santa Ana Pueblo**
Star Route, Box 37
Bernalillo, New Mexico 87004
505-867-3301

☐ **Santa Clara**
PO Box 580
Espanola, New Mexico 87532
505-753-7326

☐ **Santo Domingo**
PO Box 99
Santo Domingo Pueblo, New Mexico 87052
505-465-2625

☐ **Taos Pueblo**
PO Box 1846
Taos, New Mexico 87571
505-758-9593 or *505-758-8626*

☐ **Tesuque Pueblo**
Route 11, Box 1
Santa Fe, New Mexico 87501
505-983-2667

☐ **Zia Pueblo**
General Delivery
San Isidro, New Mexico 87053
505-867-3304

☐ **Zuni Pueblo**
PO Box 339
Zuni, New Mexico 87327

AMATEUR ARCHAEOLOGICAL SOCIETIES

☐ **Santa Fe Archaeological Society**
1003 Paseo Barranca
Santa Fe, New Mexico 87501
505-984-2108
National affiliation with **Archaeological Institute of America**.

Other societies affiliated with the **Archaeological Society of New Mexico**:

☐ **Albuquerque Archaeological Society**
PO Box 4029
Albuquerque, New Mexico 87196

☐ **Dona Ana Archaeological Society**
PO Box 15132
Las Cruces, New Mexico 88004

☐ **Grant County Archaeological Society**
PO Box 1602
Silver City, New Mexico 88062

☐ **Plateau Sciences Society**
PO Box 2433
Gallup, New Mexico 87305

☐ **San Juan Archaeological Society**
PO Box 118
Flora Vista, New Mexico 87415

☐ **Taos Archaeological Society**
PO Box 143
Taos, New Mexico 87571

☐ **Torrence County Archaeological Society**
PO Box 351
Estancia, New Mexico 87106

ARCHAEOLOGICAL CONSULTANTS

Organizations, institutions, departments, companies, individuals who have public outreach programs in anthropology and archaeology.

☐ **Agency for Conservation Archaeology**
Campus Station 9
Eastern New Mexico University
Portales, New Mexico
505-562-2254

☐ **Boyer, Jeffrey L., Consulting Archaeologist**
PO Drawer B
Taos, New Mexico 87571
505-758-0349

☐ **Cultural Resources Management Program**
San Juan College
4601 College Blvd.
Farmington, New Mexico 87402-4699
505-599-0344

☐ **Department of Behavioral Sciences**
New Mexico Highlands University
Las Vegas, New Mexico 87701
505-454-3542

☐ **DSS Consulting**
2329-B 33rd Street
Los Alamos, New Mexico 87544
970-662-9306

☐ **Fort Burgwin Research Center**
PO Box 300
Ranchos de Taos, New Mexico 87557
505-758-8322 or *214-768-2940*

☐ **Human Systems Research, Inc.**
PO Box 728
Las Cruces, New Mexico 88004-0728
505-585-2858 or *505-524-9456*

☐ **Mariah Associates, Inc.**
8417 Washington Place, NE
Albuquerque, New Mexico 87113
505-828-2990

☐ **Moore Anthropological Research**
PO Box 1156
Aztec, New Mexico 87410
505-334-6675

☐ **Northern Research Group, Inc.**
PO Box 2582
Las Vegas, New Mexico 87701
505-454-9779

☐ **Office of Archaeological Studies**
Museum of New Mexico
PO Box 2087
Santa Fe, New Mexico 87504-2087
505-827-6343

☐ **Quivera Research Center/Associates**
1809 Notre Dame, NE
Albuquerque, New Mexico 87106
505-255-9264

☐ **Southwest Archaeological Consultants, Inc.**
127 Romero Street
Santa Fe, New Mexico 87501
505-984-1151

☐ **Zuni Cultural Resource Enterprise**
Pueblo of Zuni
PO Box 339
Zuni, New Mexico 87327
505-782-4814 or *505-782-2393* (FAX)

SUGGESTED READING

FICTION

☐ **Bandelier, Adolf E.**
1971 *The Delight Makers.* Harcourt Brace Jovanovich, New York.

☐ **Clark, Ann Nolan**
1988 *Little Herder in Autumn.* Ancient City Press, Santa Fe, New Mexico.
Written in English and Navajo we follow the life of a young Indian girl and her family and their everyday life. Primary to elementary level.

☐ **Cohen, Caron Lee**
1988 *The Mud Pony.* Scholastic Inc., New York.
A young Indian boy dreamed for a pony more than anything else, and he made a horse out of mud. As this folktale unwinds it will take you into his moving adventure. Primary and elementary level.

☐ **Gish, Robert Franklin**
1993 *When Coyote Howls: A Lavaland Fable.* University of New Mexico Press.
ISBN 0-8263-1528-3.

☐ **Grammer, Maurine**
1991 *The Bear That Turned White: And Other Native Tales.* Northland Publishing.
These stories were told to the author personally by Native American friends. They are a bridge between cultures, as well as a source of enjoyment. Good bedtime stories, too. Elementary level.

☐ **Green, Timothy**
1991 *Mystery of Navajo Moon.* Northland Publishing.
Imagine how surprised Wilma was one windy, full-moon night when a silvery steed appeared at her window and carried her on a magical ride to the stars! Had Wilma been dreaming or did she really grab a moonflake from the sky? Primary to elementary level.

☐ **Hillerman, Tony**
1973 *The Great Taos Bankrobbery: and Other Indian Country Affairs.* University of New Mexico Press.
ISBN 0-8263-0530-X.

☐ **Hobbs, Ida May**
1987 *The Coming of Gray Owl.* Mesa Verde Museum Association.
As you read this book you will discover the magic of Mesa Verde. Share in the wonder as two very different people develop a friendship that bridges their dissimilar cultures. Primary to upper elementary level.

☐ **Keegan, Marcia**
1991 *Pueblo Boy: Growing Up in Two Worlds.* Cobblehill Books, New York.
A ten year old's life is filled with many activities learning the traditions of his people and the culture of the twentieth-century society. Upper elementary through junior high.

☐ **Kennard, Edward A.**
1977 *Field Mouse Goes to War.* The Filter Press.
Written in English with Hopi parallel text. This story about a hawk and a mouse keeps the reader on the edge until the very end. Primary to early elementary.

☐ **Lopez, Barry**
1990 *Crow and Weasel.* North Point Press.
In a distant era of myth time, when people and animals still spoke the same language, the Crow and Weasel meet with terrifying danger and spectacular beauty. Elementary to junior high.

☐ **Lowell, Susan and Jim Harris**
1992 *The Three Little Javelinas.* Northland Press.
These lovable, wild southwestern cousins of the pigs try to outsmart the coyote, who hopes to eat them with red chili sauce. Sure to delight children of all ages. Primary to elementary level.

☐ **Malotki, Ekkehart** (retold by)
1992 *The Mouse Couple: A Hopi Folktale.* Northland Publishing.
A delightful tale of the search for happiness, wherein a mouse meets the Sun, Clouds, Wind, and Butte, only to discover that what he seeks is right at home. Primary to elementary level.

☐ **Trimble, Stephen**
1990 *The Village of Blue Stone.* Macmillan Publishing Company.
Two cowboys looking for cattle in 1888 looked over a ledge and discovered Cliff Palace and you can discover with them the exciting things they found. Upper elementary to junior high.

☐ **Vick, Helen H.**
1993 *Walker of Time.* Harbinger House, Tucson, Arizona.

NON FICTION AND BOOKS ON NEW MEXICO ARCHAEOLOGY, ANTHROPOLOGY AND HISTORY

Many of the following are available from the Technical Information Center: Denver Service Center
National Park Service
12795 West Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225

☐ **Adams, Clinton**
1991 *Printmaking in New Mexico, 1880-1990.* University of New Mexico Press. ISBN 0-8263-1307-8 or 0-8263-1259-4.

☐ **Akins, Nancy J.**
1986 *A Biocultural Approach to Human Burials from Chaco Canyon, New Mexico. Reports of the Chaco Center No. 9.* Branch of Cultural Research, National Park Service, Santa Fe, New Mexico.

☐ **Atencio, Paulette**
nd *Cuentos From My Childhood: Legends and Folktales of Northern New Mexico.* Museum of New Mexico Press. ISBN 0-89013-225-9 or ISBN 0-89013-226-7.

☐ **Bailey, Jesse Bromilow**
1940 *Diego de Vargas and the Reconquest of New Mexico.* University Microfilms International, 300 N. Zeeb Rd., Ann Arbor, Michigan 48106. PB2-OP00251.

☐ **Babcock, Barbera A. and Nancy J. Parezo**
1988 *Daughters of the Desert: Women Anthropologists and the Native American Southwest, 1880-1980.* University of New Mexico Press.
ISBN 8263-1083-4.

☐ **Barry, Iris**
1981 *Discovering Archaeology.* Stonehenge Press, London. Printed in US by Rand McNally.

☐ **Bayer, Laura with Floyd Montoya and the Pueblo of Santa Ana**
in press *Santa Ana: The People, the Pueblo, and the History of Tamaya.* University of New Mexico Press. ISBN 0-8263-1515-1.

☐ **Bolton, Herbert E.**
1949 *Coronado: Knight of Pueblos and Plains.* University of New Mexico Press, Albuquerque.

☐ **Brody, J.J.**
1991 *Anasazi and Pueblo Painting.* University of New Mexico Press. ISBN 0-8263-1236-5.
1977 *Mimbres Painted Pottery.* University of New Mexico Press. ISBN 0-8263-0922-4

☐ **Brugge, David M.**
1986 *Tsegai: An Archeological Ethnohistory of the Chaco Region.* National Park Service Publications in Archeology, Chaco Canyon Studies 18C. Washington, D.C.
1980 *A History of the Chaco Navajos.* Reports of the Chaco Center No. 4. Division of Chaco Research, National Park Service, Albuquerque, New Mexico.

☐ **Bullock, Alice**
1991 *Mountain Villages.* Sunstone Press. ISBN 0-685-50666-5.

☐ **Bunting, Bainbridge**
1976 *Early Architecture in New Mexico.* University of New Mexico Press. ISBN 0-8263-0435-4.
1992 *Taos Adobes: Spanish Colonial and Territorial Architecture of the Taos Valley.* University of New Mexico Press.

☐ **Bunzel, Ruth L.**
1992 *Zuni Ceremonialism: Three Studies.* University of New Mexico Press. ISBN 0-8263-1376-0.

☐ **Cabeza de Baca Gilbert, Fabiola**
nd *The Good Life: New Mexico Traitions and Food.* Museum of New Mexico Press. ISBN 0-89013-137-6.

☐ **Caperton, Thomas J. and LeRheda Fry**
1977 *Links to the Past: New Mexico's State Monuments.* Museum of New Mexico Press. ISBN 0-89013-120-1.

☐ **Carson, Glen H.**
1991 *Southwest New Mexico Ghost Town Sites.* Carson Enterprises, Inc. ISBN 0-941620-41-7.

☐ **Chavez, Fray Angelico**
1954 *Origins of New Mexico Families.* New Mexico Historical Society.

☐ **Clark, William and Ree Sheck**
1990 *Railroads and Railroad Towns in New Mexico. New Mexico Magazine.* ISBN 0-937206-12-1.

☐ **Cobos, Ruben**
nd *A Dictionary of New Mexico and Southern Colorado Spanish.* Museum of New Mexico Press. ISBN 0-89013-142-2.

☐ **Cohrs, T. and T. Caperton**
nd *Fort Selden.* New Mexico State Monuments: Historic Links to the Past Series. Museum of New Mexico Press. ISBN 0-89013-242-9.

☐ **Collier, John Jr. and Malcolm Collier**
1967 *Visual Anthropology: Photography as a Research Method.* University of New Mexico Press. ISBN 0-8263-0899-6.

☐ **Connor, Linda, Rick Dingus, Steve Fitch, John Pfahl, and Charles Roitz**
1988 *Marks in Place: Contemporary Responses to Rock Art.* University of New Mexico Press. ISBN 0-8263-0976-3.

☐ **Cordell, Linda S.**
1984 *Prehistory of the Southwest.* Academic Press, Orlando.

☐ **Cork, Barbara and Struan Reid**
1984 *The Young Scientist Book of Archaeology.* Usborne Publishing, Ltd., 20 Garrick Street, London WC2E 9BJ, England. Available from EDC Publishing, 10302 East 55th Place, Tulsa, Oklahoma 74146. ISBN 0-86020-865-6. Audience: Secondary.

☐ **Cosgrove, Cornelius B.**
1947 *Caves of the Upper Gila and Hueco Areas in New Mexico and Texas.* Kraus Reprint. ISBN 0-527-01261-0.

☐ **Coulter, Lane and Maurice Dizon, Jr.**
1990 *New Mexican Tinwork, 1840-1940.* University of New Mexico Press. ISBN 0-8263-1525-9

☐ **Creamer, Winifred**
1993 *Architecture of Arroyo Hondo Pueblo, New Mexico.* SAR Research Press. ISBN 0-933452-35-7.

☐ **Crown, Patricia L.**
Ceramics and Ideology: Salado Polychrome Pottery. University of New Mexico Press. ISBN 0-8263-1477-5.

☐ **Crown, Patricia L. and W. James Judge**
1991 *Chaco and Hohokam: Prehistoric Regional Systems in the American Southwest.* SAR Research Advanced Seminar Series.

☐ **De Luxan, Diego P.**
1974 *Expedition into New Mexico Made by Antonio de Espejo 1582-1583.* Ayer Co. Publishers, Inc. ISBN 0-405-00088-X.

☐ **Dearen, Patrick**
1993 *Portraits of the Pecos Frontier.* Texas Tech University Press. ISBN 0-89672-288-0.

☐ **De Mark, Judith Boyce** (editor)
1993 *Essays in Twentieth-Century New Mexico History.* University of New Mexico Press. ISBN 0-8263-1483-X.

☐ **Delgado, Deane** (editor)
1990 *Historical Markers in New Mexico: A Traveler's Guide.* Ancient City Press. ISBN 0-941270-62-G.

☐ **Dickson, D. Bruce, Jr.**
1980 *Prehistoric Pueblo Settlement Patterns: The Arroyo Hondo, New Mexico, Site Survey.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-02-0

☐ **Dillingham, Rick and Melinda Elliott**
1992 *Acoma and Laguna Pottery.* SAR Research Resident Scholar Series. ISBN 0-933452-31-4 or ISBN 0-933452-32-2.

☐ **Dixon, E. James**
1993 *Quest for the Origins of the First Americans.* University of New Mexico Press. ISBN 0-8263-1480-5.

☐ **Dominquez, Francisco A.**
1956 *Missions of New Mexico* (translated by Fray Angelico Chavez). University of New Mexico Press.

☐ **Dutton, Bertha P.**
1983 *American Indians of the Southwest.* University of New Mexico Press. ISBN 0-8263-0704-3.

☐ **Earls, Amy**
1987 *An Archaeological Assessment of "Las Huertas", Socorro, New Mexico.* University of New Mexico Press. ISBN 0-912535-04-0.

☐ **Early, James**
1994 *The Colonial Architecture of Mexico.* University of New Mexico Press. ISBN 0-8263-1474-0.

☐ **Ebert, James L.**
1992 *Distributional Archaeology.* University of New Mexico Press. ISBN 0-8263-1350-7.

☐ **Ebright, Malcolm**
1993 *Land Grants and Lawsuits in Northern New Mexico.* University of New Mexico Press. ISBN 0-8263-1461-9.

☐ **Elliot, Michael L.**
nd *Jemez.* New Mexico State Monuments: Historic Links to the Past Series. Museum of New Mexico. ISBN 0-89013-142-5.

☐ **Fagan, Brian M.**
1989 *The Adventure of Archaeology.* National Geographic Society, Washington, D.C. 20036. ISBN 0-87044-603-7. Audience: Secondary and up.

☐ **Falk, Lisa**
1991 *Historical Archaeology in Global Perspective.* Smithsonian Institution Press, Washington, D.C. 20560. ISBN 0-87474-413-X. Audience: High school and up.

☐ **Ferguson, T. J. and E. Richard Hart**
1985 *A Zuni Atlas.* University of Oklahoma Press. ISBN 0-8061-1945-4 or ISBN 0-8061-2287-0.

☐ **Ferguson, William M. and Arthur H. Rohn**
1987 *Anasazi Ruins of the Southwest in Color.* University of New Mexico Press. ISBN 0-8263-0874-0.

☐ **Fewkes, Jesse Walter**
1989 *The Mimbres: Art and Archaeology.* University of New Mexico Press. ISBN 0-936755-10-5.

☐ **Fisher, Nora**
in press *Rio Grande Textiles.* Museum of New Mexico Press. ISBN 0-89013-266-6.

☐ **Folsom, Franklin and Mary Elting Folsom**
1993 *America's Ancient Treasures.* University of New Mexico Press. ISBN 08263-1424-4 or 0-8263-1450-3.
1989 *Ancient Treasures of the Southwest.* University of New Mexico Press. ISBN 0-8263-1427-9.

☐ **Foster, Lynn V. and Lawrence Foster**
1986 *Fielding's Spanish Trails in the Southwest.* Morrow, William and Co, Inc. ISBN 0-688-04757-2.

☐ **Fraden, Dennis B.**
1983 *Archaeology.* Children's Press, 5440 N. Cumberland Ave., Chicago, Illinois 60656. ISBN 0-516-41691-X. Audience: Young juvenile.

☐ **Fugate, Francis L. and Robert B. Fugate**
1989 *Roadside History of New Mexico.* Mountain Press Publishing Co. ISBN 0-87842-242-0.

☐ **Gavin, Robin F.**
1994 *Traditional Arts of Spanish New Mexico: The Hispanic Heritage Wing at the Museum of International Folk Art.* Museum of New Mexico Press. ISBN 0-89013-258-5.

☐ **Givens, Douglas R.**
1992 *Alfred Vincent Kidder and the Development of Americanist Archaeology.* University of New Mexico Press. ISBN 0-8263-1351-5.

☐ **Gould, Richard Allen**
1990 *Recovering the Past.* University of New Mexico Press. ISBN 0-8263-1229-2.

☐ **Habicht-Mauche, Judith A.**
1993 *The Pottery from Arroyo Hondo Pueblo: Tribalization and Trade in the Northern Rio Grande.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-34-9.

☐ **Hall, Martin H.**
1978 *Confederate Army of New Mexico.* Presidential Press. ISBN 0-935978-10-0.

☐ **Hallett, Bill and Janet Hallett**
1988 *Look Up, Look Down, Look All Around: El Morro National Monument.* Look and See Publications. ISBN 0-943087-04-X.
1989 *Look Up, Look Down, Look All Around: Chaco Culture National Historical Park.* Look and See Publications. ISBN 0-865-26277-4.

☐ **Harris, Bill**
1993 *New Mexico.* Outlet Book Co., Inc. ISBN 0-517-07261-0.

☐ **Hayes, Alden C., David M. Brugge, and W. James Judge**
1981 *Archeological Surveys of Chaco Canyon, New Mexico.*
National Park Service Publications in Archeology, Chaco Canyon Studies 18A. Washington, D.C. Reprinted in 1988 by University of New Mexico Press.

☐ **Hazen-Hammond, Susan**
1984 *Enchanting New Mexico. New Mexico Magazine.* ISBN 0-937206-04-0.

☐ **Historic Santa Fe Association Staff** (editor)
1991 *We're So Lucky to Live in Santa Fe: An Activities Book in Historical Preservation.* Museum of New Mexico Press. ISBN 0-89013-196-1. Audience: juvenile.

☐ **Horgan, Paul**
1956 *The Centuries of Santa Fe.* University of New Mexico Press. ISBN 0-8263-1491-0.

☐ **Huges, Phyllis** (editor)
nd *Pueblo Indian Cookbook.* Museum of New Mexico Press. ISBN 0-89013-094-9.

☐ **Hutt, Sherry, Elwood W. Jones, and Martin E. McAllister**
1992 *Archeological Resource Protection.* The Preservation Press, National Trust for Historic Preservation, 1785 Massachusetts Avenue NW, Washington, D.C. 20036. Audience: High school and up.

☐ **Jenkins, Myra E. and Albert H. Schroeder**
1974 *Brief History of New Mexico.* University of New Mexico Press. ISBN 0-8263-0370-6.

☐ **Judge, W. James, and John D. Schelberg**
1984 *Recent Research on Chaco Prehistory.* Reports of the Chaco Center No. 8. Division of Cultural Research, National Park Service, Albuquerque, New Mexico.

☐ **Keleher, William A.**
1984 *Maxwell Land Grant: A New Mexico Item.* Books on Demand. ISBN 0-7837-1635-4, 2041928.

☐ **Kelley, N. Edmund**
1979 *The Contemporary Ecology of Arroyo Hondo.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-01-2.

☐ **Kelley, Jane H. and Marsha P. Hanen**
1988 *Archaeology and the Methodology of Science.* University of New Mexico Press. ISBN 0-8263-1227-6.

☐ **Kessel, John L.**
1980 *The Missions of New Mexico Since 1776.* University Microfilms International, 300 North Zeeb Rd, Ann Arbor, Michigan, 48106. PB2-2037574.
1990 *Kiva, Cross, and Crown: The Pecos Indians and New Mexico.* University of New Mexico Press. ISBN 0-8263-0968-2.

☐ **Kidder, Alfred A.**
1915 *Pottery of the Pajarito Plateau and of Some Ancient Regions in New Mexico: American Anthropology Association Memoirs.* Kraus Reprint. 0-527-00511-8.
1958 *Pecos, New Mexico: Archaeological Notes.* Peabody Museum of Archaeology. ISBN 0-939312-06-9.

☐ **Kincaid, Chris** (editor)
1983 *Chaco Roads Project Phase One: A Reappraisal of Prehistoric Roads in the San Juan Basin.* Bureau of Land Management.

☐ **Kirgo, Julie**
1989 *New Mexico: A Portrait of the Land and Its People.* American World Geographic Publishing. ISBN 0-938314-65-3.

☐ **Kubler, George**
1990 *Religious Architecture of New Mexico in the Colonial Period and Since the American Occupation.* University of New Mexico Press. ISBN 0-8263-1210-1.

☐ **Lang, Richard W. and Arthur H. Harris**
1984 *The Faunal Remains from Arroyo Hondo Pueblo, New Mexico: A Study in Short-Term Subsistence Change.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-09-8.

☐ **Lange, Charles H.**
1990 *Cochiti: A New Mexico Pueblo, Past and Present.* University of New Mexico Press. ISBN 0-8263-1188-1.

☐ **Larson, Carole**
1993 *Forgotten Frontier: The Story of Southeastern New Mexico.* University of New Mexico Press. ISBN 0-8263-1440-6 or ISBN 0-8263-1439-2.

☐ **Lattimore, Deborah Nourse**
1986 *Digging Into the Past.* Educational Insights, 19560 South Rancho Way, Dominguez Hills, California 90220. Order # EI-5714 (book) and EI-5709 (decoder). Audience: Upper elementary and secondary.

☐ **Lavash, Donald R.**
1993 *A Journey Through New Mexico History.* Sunstone Press. ISBN 0-86534-194-X.

☐ **Lekson, Stephan H.**
1990 *Mimbres Archaeology: The Upper Gila, New Mexico.* University of Arizona Press, Tucson. ISBN 0-8165-1164-0.

☐ **Lekson, Stephen H., with contributions by William B. Gillespie and Thomas C. Windes**
1984 *Great Pueblo Architecture of Chaco Canyon, New Mexico.* National Park Service Publications in Archeology, Chaco Canyon Studies 18B. Albuquerque, New Mexico. Reprinted in 1986 by University of New Mexico Press.

☐ **Lekson, Stephan H.**
1994 *Ancient Land, Ancestral Places: Paul Logsdon in the Pueblo Southwest.* Museum of New Mexico. ISBN 0-89013-245-3 or ISBN 0-89013-246-1.

☐ **Lekson, Stephen H.** (editor) **with contributions by Jeffrey S. Dean, Peter J. McKenna, and Richard L. Warren**
1983 *The Architecture and Dendrochronology of Chetro Ketl, Chaco Canyon, New Mexico.* Reports of the Chaco Center No. 6. Division of Cultural Research, National Park Service, Albuquerque, New Mexico.

☐ **Lekson, Stephen H., Simon Ortiz, and John R. Stein**
in press *Chaco Canyon: A Center and its World.* Museum of New Mexico Press. ISBN 0-89013-260-7.

☐ **Lister, Robert H. and Florence C. Lister**
1981 *Chaco Canyon: Archaeology and Archaeologists.* University of New Mexico Press, Albuquerque. Audience: Grades 9 and up. ISBN 0-8263-0756-6.
1983 *Those Who Came Before: Southwestern Archaeology and the National Park Service.* University of Arizona Press, Tucson. ISBN 0-8263-1543-7.
1987 *Aztec Ruins on the Animas: Excavated, Preserved, and Interpreted.* University of New Mexico Press. ISBN 0-8263-0756-6.

☐ **Looney, Ralph**
1992 *Haunted Highways: The Ghost Towns of New Mexico.* University of New Mexico Press. ISBN 0-8263-0506-7.

☐ **Lovett, Sarah**
1991 *New Mexico Cultural Resources Directory.* Museum of New Mexico Press. ISBN 0-89013-223-2.
1992 *Old Santa Fe Today: Historical Santa Fe Foundation.* University of New Mexico Press. ISBN 0-8263-1303-5.
1993 *Unique New Mexico: A Guide to the State's Quirks, Charisma, and Character.* John Muir Publications. ISBN 1-56261-102-X.

☐ **Lyons, Thomas R., and Robert K. Hitchcock** (editors)
1977 *Aerial Remote Sensing Techniques in Archeology.* Reports of the Chaco Center No. 2. National Park Service and University of New Mexico, Albuquerque, New Mexico.
1976 *Remote Sensing Experiments in Cultural Resource Studies: Non-destructive Methods of Archeological Exploration, Survey, and Analysis.* Reports of the Chaco Center No. 1. National Park Service and
University of New Mexico, Albuquerque, New Mexico.

☐ **Macaulay, David**
1979 *Motel of the Mysteries.* Houghton Mifflin Co., 2 Park Street, Boston, Massachusetts 02108-4894. ISBN 0-395-28425-2. Audience: Secondary and up.

☐ **Marsh, Carole**
1994 *New Mexico Jeopardy!: Answers and Questions About Our State.* Gollopade. ISBN 0-7933-4173-6 (book), 0-7933-4174-4 (disk). Audience: Grades 3 through 12.
1994 *New Mexico Timeline: A Chronology of New Mexico History, Mystery, Trivia, Legend, Lore, and More.* ISBN 0-7933-5968-6 (book), ISBN 0-7933-5970-8 (disk). Audience: Juvenile.

☐ **Mathien, Frances Joan, and Thomas C. Windes (editors)**
1987 *Volume III. Artifactual and Biological Analyses.*
1987 *Volume IV. Microfiche.* National Park Service Publications in Archeology, Chaco Canyon Studies 18F. Santa Fe, New Mexico.

☐ **Mathien, Frances Joan (editor)**
1985 **Environment and Subsistence of Chaco Canyon, New Mexico.** National Park Service Publications in Archeology, Chaco Canyon Studies 18E. Albuquerque, New Mexico.

☐ **McDowell, Steve**
in press *The Persistence of Memory: New Mexico's Churches.* Museum of New Mexico Press. ISBN 0-89013-206-2 or ISBN 0-89013-207-0.

☐ **McIntyre, Kellen Kee**
1992 *Rio Grande Blankets: Late Nineteenth-Century Textiles in Transition.* University of New Mexico Press. ISBN 0-9633710-0-2.

☐ **McKenna, Peter J. and Marcia L. Truell**
1986 *Small Site Architecture of Chaco Canyon, New Mexico.* National Park Service Publications in Archeology, Chaco Canyon Studies 18D. Santa Fe, New Mexico.

☐ **McKenna, Peter J. with contributions by H. Wolcott Toll**
1984 *The Architecture and Material Culture of 29SJ1360. Chaco Canyon, New Mexico.* Reports of the Chaco Center No. 7. Division of Cultural Research, National Park Service, Albuquerque, New Mexico.

☐ **McIntosh, Jane**
1986 *The Practical Archaeologist.* The Paul Press, Ltd., 41-42 Berners Street, London W1P 3AA, England. Available from Facts on File Publications, 460 Park Avenue South, New York, New York 10016. ISBN 0-8160-1814-6. Audience: High school and up.

☐ **McNutt, Nan**
1988 *P.A.S.T.: Project Archaeology: Saving Traditions.* Sopris West, Longmont, Colorado.

☐ **McCaig and Boyce**
1989 *New Mexico State Parks.* Affordable Adventures, Inc. ISBN 0-935201-66-1.

☐ **McDonald, Michael**
1992 *The Quiz of Enchantment. New Mexico Magazine.* ISBN 0-937206-23-7.

☐ **Mera, H.P.**
1987 *Spanish-American Blanketry: Its Relationship to Aboriginal Weaving.* SAR Press. ISBN 0-933452-22-5.

☐ **Messenger, Phyllis Mauch** (editor)
1989 *The Ethics of Collecting Cultural Property: Whose Culture? Whose Property?* University of New Mexico Press. ISBN 0-8263-1281-0.

☐ **Minge, Ward Lan**
1991 *Acoma: Pueblo in the Sky.* University of New Mexico Press. ISBN 0-8263-1301-9.

☐ **Muench, David and Robert Reynolds**
1992 *New Mexico and Rio Grande and Other Essays.* Graphic Arts Center Publishing Co. ISBN 1-55868-093-4.

☐ **Murphy, Lawrence R.**
1993 *Philmont: A History of New Mexico's Cimarron Country.* University of New Mexico Press. ISBN 0-8263-0244-0.

☐ **Museum of New Mexico Press**
nd *Sources and Searches: Documenting Historical Churches in New Mexico.* ISBN 0-89013-190-2.

☐ **Myrick, David F.**
1970 *New Mexico's Railroads: A Historical Survey.* University of New Mexico Press. ISBN 0-8263-1185-7.

☐ **National Park Service**
1993 *Teaching with Historic Places.* Bulletin with a series of lesson plans insert produced by the National Park Service and the National Trust for Historic Preservation. CRM Volume 16, No. 2. Available from Judy Reed, National Park Service, P.O. Box 728, Santa Fe, New Mexico 87504-0728, *505-820-7218.* Audience: Teachers.

☐ **New Mexico Magazine**
1989 *Explore New Mexico: Insider's Guide: Gateways in the Land of Enchantment.* University of New Mexico Press. ISBN 0-937206-08-3.

☐ **New Mexico Photo Archives**
1994 *Churches of New Mexico.* Museum of New Mexico Press. ISBN 0-89013-269-0.
1994 *Historic Santa Fe.* Museum of New Mexico Press. ISBN 0-89013-262-3.
1994 *Villages of the Rio Grande.* Museum of New Mexico Press. ISBN 0-89013-268-2.

☐ **Nials, Fred**
1987 *Chacoan Roads in the Southern Periphery: Results of Phase II of the Bureau of Land Management Chaco Roads Project.* Bureau of Land Management.

☐ **Niethammer, Carolyn**
1974 *American Indian Food and Lore.* MacMillan, New York.

☐ **Noble, David Grant** (editor)
1990 *Santa Fe.* SAR Press. ISBN 0-933452-26-8 or ISBN 0-933452-27-6.
1984 *New Light on Chaco Canyon.* School of American Research Press, P.O. Box 2188, Santa Fe, New Mexico 87504-2188. Audience: Grades 7 and up.
1994 *Pueblos, Villages, Forts, and Trails.* University of New Mexico Press. ISBN 0-8263-1514-3 or ISBN 0-8263-1485-6.

☐ **Noyes, Stanley**
1993 *Los Comancheros: The Horse People, 1751-1845.* University of New Mexico Press. ISBN 0-8263-1548-8.

☐ **Palkovich, Anne M.**
1981 *Pueblo Population and Society: The Arroyo Hondo Skeletal and Mortuary Remains.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-03-9.

☐ **Parezo, Nancy J.**
1980 *Hidden Scholars: Women Anthropologists and the Native American Southwest.* University of New Mexico Press. ISBN 0-8263-1428-7.

☐ **Paterson-Rudolph, Carol**
1990 *Petroglyphs and Pueblo Myths of the Rio Grande.* University of New Mexico Press. ISBN 0-936755-13-X.

☐ **Peckham, Stewart**
1990 *From This Earth: The Ancient Art of Pueblo Pottery.* Museum of New Mexico Press. ISBN 0-89013-204-6.

☐ **Peckham, Stewart, Andrew Hunter Whiteford, Kate Peck Kent, Nancy Fox, Rick Dillingham**
nd *I Am Here: Two Thousand Years of Southwest Indian Arts and Culture.* Museum of New Mexico Press. ISBN 0-89013-174-0.

☐ **Penfield, Thomas**
1974 *Treasure Guide to New Mexico.* Carson Enterprises, Inc. ISBN 0-941620-24-7.

☐ **Phipps, Shirley**
1993 *Santa Fe and Beyond.* Scott Publications. ISBN 0-916809-61-7.

☐ **Pickering, Robert B.**
1987 *I Can be an Archaeologist.* Children's Press, 5440 North Cumberland Avenue, Chicago, Illinois 60656. ISBN 0-516-41909-9. Audience: Young juvenile.

☐ **Powers, Robert P., William B. Gillespie, and Stephen H. Lekson**
1983 *The Outlier Survey: A Regional View of Settlement in the San Juan Basin.* Reports of the Chaco Center No. 3. Division of Cultural Research, National Park Service, Albuquerque, New Mexico.

☐ **Remley, David**
1993 *Bell Ranch: Cattle Ranching in the Southwest.* University of New Mexico Press. ISBN 0-8263-1399-X.

☐ **Rittenhouse, Jack D.**
1989 *A Guidebook to Highway 66.* University of New Mexico Press. ISBN 0-8263-1148-2.

☐ **Roberts, Frank**
1991 *Ceramic Sequence in Chaco Canyon, New Mexico and its Relation to the Cultures of the San Juan Basin.* Garland Publishing, Inc. ISBN 0-8240-2513-X.

☐ **Roberts, Susan and Calvin Roberts**
1991 *A History of New Mexico.* University of New Mexico Press. ISBN 0-8263-1264-0 and ISBN 0-685-47768-1.
1991 *New Mexico.* University of New Mexico Press. ISBN 0-8263-1145-8.

☐ **Rohn, Arthur H.**
1991 *Rock Art of Bandelier National Monument.* University of New Mexico Press. ISBN 0-8263-1052-4.

☐ **Romero Cash, Marie**
1993 *Built of Earth and Song: Churches of Northern New Mexico.* Red Crane Books, Inc. ISBN 1-878610-30-G.

☐ **Roscoe, Will**
1992 *The Zuni Man-Woman.* University of New Mexico Press. ISBN 0-826-31370-1.

☐ **Ruppe, Reynold**
1991 *The Acoma Culture Province.* Garland Publishing, Inc. ISBN 0-824-06110-1.

☐ **Ryan, Jan S.**
1992 *Preventing Cultural Resources Destruction—Taking Action Through Interpretation.* U.S. Government Printing Office. Contact David Hesker or Mary Ryan, Branch of Publications and Graphic Design, Denver Service Center, 12795 West Alameda Parkway, P.O. Box 25287, Denver, Colorado 80225-0287. Audience: Teacher's reference.

☐ **Sanchez, Joseph P. and John V. Beze** (editor)
1988 *Pecos: Gateway to the Pueblo and Plains, the Anthology.* Southwest Parks and Monuments Association. ISBN 0-911408-77-0.

☐ **Sandoval, Richard C. and Ree Sheck**
nd *Indians of New Mexico.* University of New Mexico Press. ISBN 0-937206-16-4.

☐ **Schaafsma, Polly**
1992 *Indian Rock Art in New Mexico.* SAR Research Southwest Indian Arts Series. ISBN 0-8263-0913-5.

☐ **Schaafsma, Polly**
nd *Rock Art in New Mexico.* SAR Research Southwest Indian Arts Series. ISBN 0-89013-232-1.

☐ **Schneider, Jill**
1991 *Route 66 Across New Mexico: A Wanderer's Guide.* University of New Mexico Press. ISBN 0-8263-1280-2.

☐ **Schneider-Hector, Dietmar**
1993 *White Sands: The History of a National Monument.* University of New Mexico Press. ISBN 0-8263-1415-5.

☐ **Sebastian, Lynn**
1992 *The Chaco Anasazi: Sociopolitical Evolution in the Prehistoric Southwest.* Cambridge University Press, Massachusetts. ISBN 0-521-40367-7.

☐ **Sedillo, Mela C.**
1945 *Mexican and New Mexican Folkdances.* University Microfilms International, 300 North Zeeb Rd., Ann Arbor, Michigan 48106. PB2-OP55880.

☐ **Seymour, Peter**
1986 *Discovering Our Past.* MacMillan Publishing Co., 866 Third Avenue, New York, New York 10022. Available from Scholastic, Inc., 730 Broadway, New York, NY 10003. ISBN 0-590-41953-6. Audience: Upper elementary.

☐ **Sherman, James E. and Barbara H.**
1975 *Ghost Towns and Mining Camps of New Mexico.* University of Oklahoma Press. ISBN 0-8061-1106-2.

☐ **Simmons, Marc**
1982 *Albuquerque: A Narrative History.* University Microfilms International, 300 North Zeeb Rd., Ann Arbor, MI 48106. PB2-2032585.
1991 *Coronado's Land: Essays on Daily Life in Colonial New Mexico.* University of New Mexico Press. ISBN 0-8263-1313-2.
1992 *New Mexico!* University of New Mexico Press. ISBN 0-8263-1265-9.
1993 *New Mexico: An Interpretive History.* University of New Mexico Press. ISBN 0-8263-1110-5.
nd *Southwestern Colonial Ironwork.* University of New Mexico Press. ISBN 0-89013-128-7.
1994 *Treasure Trails of the Southwest.* University of New Mexico Press. ISBN 0-8263-1510-0 or ISBN 0-8263-1509-7.

☐ **Smith, George S. and John E. Ehrenhard (editors)**
1991 *Protecting the Past.* CRC Press, 2000 Corporate Blvd., Boca Raton, Florida 33431. ISBN 0-8493-8877-5. Audience: Secondary and up.

☐ **Smith, Toby**
1994 *Coal Town: The Life and Times of Dawson, New Mexico.* Ancient City Press. ISBN 0-941270-82-3.

☐ **Spears, Beverly**
1986 *American Adobes: Rural Houses of Northern New Mexico.* University of New Mexico Press. ISBN 0-8263-0896-1.

☐ **Stone, Peter and Robert MacKenzie** (editors)
1989 *The Excluded Past.* Unwin Hyman, London, England. Audience: Adult.

☐ **Tainter, Joseph A. and R.H. Hamre** (editors)
1988 *Tools to Manage the Past: Research Priorities for Cultural Resources Management in the Southwest.* Symposium Proceedings, May 2–6, 1988, Grand Canyon, Arizona, USDA Forest Service General Technical Report RM-164, Fort Collins, Colorado. Audience: Adult.

☐ **Thomas, Alfred Barnaby**
1940 *The Plains Indians and New Mexico, 1751–1778: A Collection of Documents Illustrative of the History of the Eastern Frontier of New Mexico.* University Microfilms International, 300 North Zeeb Rd., Ann Arbor, Michigan 48106. PB2-OP55411.

☐ **Thomas, Gerald W., Monroe Billington, and Roger D. Walker** (editors)
in press *Victory in World War II: The New Mexico Story.* University of New Mexico Press, Rio Grande Historical Collections. ISBN 0-8263-1565-8 or ISBN 0-8263-1566-6.

☐ **Thybony, Scott**
1992 *Aztec Ruins National Monument.* Southwest Parks and Monuments Association. ISBN 1-877-85698-8.

☐ **Tobias, Henry J.**
1992 *A History of Jews in New Mexico.* University of New Mexico Press. ISBN 0-8263-1390-6.

☐ **Toulouse, Betty**
nd *Pueblo Pottery of the New Mexico Indians.* Museum of New Mexico Press. ISBN 0-89013-091-4.

☐ **Treib, Marc**
1993 *Sanctuaries of Spanish New Mexico.* University of California Press. ISBN 0-520-06420-8.

☐ **Twitchell, Ralph**
1976 *The History of the Military Occupation of the Territory of New Mexico from 1846-1851: With Biographical Sketches of Men Prominent in Government.* Ayer Publishing, Inc. ISBN 0-405-09528-7.

☐ **Tyler, Daniel**
nd *Sources for New Mexican History, 1821-1848.* Museum of New Mexico Press. ISBN 0-89013-147-3.

☐ **Tyler, Hamilton A.**
1979 *Pueblo Birds and Myths.* University of Oklahoma Press. ISBN 0-87358-519-4.

☐ **U.S. Congress**
1986 *Technologies for Prehistoric and Historic Preservation.* U.S. Congress, Office of Technology Assessment, OTA-E-319, Library of Congress Catalog Card Number 86-600574. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Audience: High school and up.

☐ **U.S. Information Agency**
1992 *Curbing Illicit Trade in Cultural Property: U.S. Assistance under the Convention on Cultural Property Implementation Act.* Division of Creative Arts, U.S. Information Agency, 301 4th Street SW, Room 224, Washington, D.C. 20547. Free copies available from Judy Reed, National Park Service, P.O. Box 728, Santa Fe, New Mexico 87504-0728. Audience: Adult.

☐ **Varney, Phillip A.**
1987 *New Mexico's Best Ghost Towns: A Practical Guide.* University of New Mexico Press. ISBN 0-8263-1010-9.

☐ **Vigil, Arnold**
in press *Backtracks: Time Travel Through New Mexico.* University of New Mexico Press. ISBN 0-937206-31-8.

☐ **Vivian, Gwin R.**
1990 *The Chacoan Prehistory of the San Juan Basin.* Academic Press, Inc. ISBN 0-12-722440-8.

☐ **Wallis, Michael**
in press *En Divina Luz: The Penitente Moradas of New Mexico.* University of New Mexico Press. ISBN 0-8263-1547-X.

☐ **Warren, Nancy**
1987 *Villages of Hispanic New Mexico.* SAR Research Press. ISBN 0-933452-20-9.

☐ **Weigle, Marta, and Peter White**
1988 *The Lore of New Mexico.* University of New Mexico Press. ISBN 0-8263-1047-8.

☐ **Wetterstrom, Wilma E.**
1986 *Food, Diet, and Population at Prehistoric Arroyo Hondo Pueblo, New Mexico.* SAR Arroyo Hondo Archaeological Series. ISBN 0-933452-16-0.

☐ **White, Peter, and Mary A. White** (editors)
1988 *Along the Rio Grande: Cowboy Thorp's New Mexico.* Ancient City Press. ISBN 0-941270-44-0.

☐ **Whitlow, Duane, and James C. Smith, Jr.**
1992 *Lincoln County Diary.* Sunstone Press. ISBN 0-86534-157-5.

☐ **Williams, Jerry L.**
1986 *New Mexico in Maps.* University of New Mexico Press. ISBN 0-8263-0870-8.

☐ **Wills, W.H.**
1988 *Early prehistoric Agriculture in the American Southwest.* SAR Resident Scholar Series.

☐ **Wilson, John P.**
nd *Lincoln.* New Mexico State Monuments: Historic Links to the Past Series. Museum of New Mexico Press. ISBN 0-890130243-7.

☐ **Windes, Thomas C.**
1987 *Investigations at the Pueblo Alto Complex, Chaco Canyon, New Mexico, 1975-1979.* Volume I. Summary of Tests and Excavations at the Pueblo Alto Community.
1987 *Volume II. Architecture and Stratigraphy.* National Park Service Publications in Archeology, Chaco Canyon Series. Santa Fe.
1978 *Stone Circles of Chaco Canyon, Northwestern New Mexico.*
Reports of the Chaco Center No. 5. Division of Chaco Research, National Park Service, Albuquerque, New Mexico.

☐ **Woodbury, Richard B.**
1993 *Sixty Years of Southwestern Archaeology: A History of the Pecos Conference.* University of New Mexico Press. ISBN 0-8263-1411-2.

☐ **WPA Staff**
1989 *WPA Guide to 1930s New Mexico.* University of Arizona Press. ISBN 0-8165-1102-0.

☐ **Wright, Barton** (editor)
1988 *The Mythic World of the Zuni: As Written by Frank Hamilton Cushing.* University of New Mexico Press. ISBN 0-8263-1387-6.

☐ **Yoder, Walter D.**
nd *The Big New Mexico Activity Book.* 94 pages of activities covering rock art designs, kachinas, Hispanic folk art, Spanish missions, sand paintings, prehistoric and historic Indian pottery designs, the natural world, Native American art, and special attractions in New Mexico. Available from Walter D. Yoder, 8417 Capulin NE, Albuquerque, New Mexico 87109, for $9.95 plus $2.00 postage. Audience: Grades 4-7.

☐ **Young, M. Jane**
1992 *Signs From the Ancestors: Zuni Cultural Symbolism and Perceptions of Rock Art.* University of New Mexico Press. ISBN 0-8263-1203-9.

STORIES AND LEGENDS

☐ **Caduto, Michael J. and Joseph Bruchac**
1990 *Keepers of the Animals.* Fulcrum Press.
Teachers will delight with their children in lovingly told and magically illustrated stories about "our relations with the animals." Twenty-four stories in all demonstrate the power and importance of animals in Native American traditions. This has a teachers guide to go along with it. Kindergarten to junior high.
1990 *Keepers of the Earth.* Fulcrum Press.
This collection is about living, learning and caring. It features a collection of North

American Indian stories and related hands-on activities. This has a teachers guide to go along with it. Preschool to junior high.
1992 *Native American Animal Stories.* Fulcrum Press.
Twenty four stories derived from *Keepers of the Animals.* Tribes of the Hopi, Mohawk, Yaqui and other cultures demonstrating the power of animals in Native American traditions. Preschool to junior high.
1994 *Keepers of the Night.* Fulcrum Press.
In the Native cultures nighttime is a crucial part of the balance in the universe and this features valuable lessons about the natural world. Included are field-tested, hands-on activities. Primary to junior high.

☐ **Cushing, Frank Hamilton**
1901 *Zuni Folk Tales.* .University of Arizona Press.
ISBN 0-8165-0986-7.

☐ **Lavitt, Edward and Robert E. McDowell**
1990 *Ninhancan's Feast of Beaver.* Museum of New Mexico Press.
Tales of the North American Indians drawn from nine culture areas, that entertain and teach "how to live a good life among one's own people". Elementary to junior high.

☐ **Monroe, Jean Guard and Ray A. Williamson**
1987 *They Dance in the Sky: Native American Star Myths.* Houghton Mifflin Co.
For countless generations, Native American storytellers have watched the night sky and told tales of the stars and the constellations. This book is an exciting introduction to the skylore of the first Americans. Elementary to junior high.

☐ **Palmer , William R.**
1978 *Why the North Star Stands Still.* Zion Natural History Association.
Legends handed down from generation to generation among the Pahute Indians who settled centuries ago in the state of Utah. Elementary to junior high level.

☐ **Red Hawk, Richard**
1988 *Grandfather's Origin Story: The Navajo Indian Beginning.* Sierra Oaks Publishing, Co.
Grandfather explains the creation of the Navajos to a group of children, asking them to remember the various stories as their ancestors taught them. Preschool to elementary level.
1988 *Grandfather's Story of Navajo Monsters.* Sierra Oaks Publishing, Co.
For centuries Navajo parents and grandparents have shared these monster stories of giants and warriors defeating terrifying foes with young people. Preschool to elementary level.

RESOURCE GUIDES • TEACHING MANUALS • LESSON PLANS

☐ **Adams, E. Charles and Barbara Gronemann**
nd *Garbage Can Archeology.*
A two-page lesson plan for a classroom activity that require about an hour's time. Materials used are from school trash cans. Contact Arizona Archaeological Council, Archaeology for the Schools Committee, c/o Shurban, Arizona State Museum, University of Arizona, Tucson, AZ 85721.

☐ **Anisman** et al.
nd *Stones and Bones: A Laboratory Approach to Physical Anthropology.*
Los Angeles Unified School District, Physical Anthropology Center, 6625 Balboa Blvd., Van Nuys, CA 91406. Available from publisher. High school.

☐ **Arizona Archaeological Council**
nd *Archaeology in the Classroom.*
Arizona Archaeological Council, Arizona State Museum, University of Arizona, Tucson, AZ 85721. Available from publisher. Upper elementary and secondary.

☐ **Caduto, Michael and Joseph Bruchac**
1989 *Keepers of the Animals.*
Teacher's guide and text. Fulcrum Inc., 350 Indiana Street, Suite 350, Golden, CO 80401. ISBN 1-55591-027-0. Elementary and secondary.

☐ **Caduto, Michael and Joseph Bruchac**
1988 *Keepers of the Earth.*
Teacher's guide and text. Fulcrum Inc., 350 Indiana Street, Suite 350, Golden, CO 80401. ISBN 1-55591-027-0. Elementary and secondary.

☐ **Crosby, Nina and Elizabeth Marten**
1984 *Discovering Anthropology.*
Student and teacher volumes. United Educational Services, Inc., D.O.K. Publishers, P.O. Box 1099, Buffalo, NY 14224. Order #:ISBN 0-88047-049-6. Grades elementary through high school.

☐ **Crow Canyon Center**
nd *Teacher's Guide.*
A teacher's guide to archeological activities. For more information contact Education Director, Crow Canyon Archaeological Center, 23390 County Road K, Cortez, CO 81321, 970-565-8975 or 1-800-422-8975.

☐ **Dickens, Roy Jr. and James McKinley**
1979 *Frontiers in the Soil.*
Student and teacher volumes. Frontiers Publishing Co., P.O. Box 3474, LaGrange, Georgia 30241. Available from publisher. Upper elementary and secondary.

☐ **Doherty, Edith and Louise C. Evans**
1981 *Stones and Bones: Archaeology.*
Synergetics, P.O. Box 84, East Windsor Hill, CT 06028. Order #:STO. Elementary through middle school.

☐ **Gilman, Rhoda and Stephen Sandell**
1990 *Northern Lights.*
Minnesota Historical Society Press, 690 Cedar Street, St. Paul, MN 55101. Available from publisher. Elementary through middle school.

☐ **Hawkins, Nancy**
1984 *Classroom Archaeology.*
Louisiana Department of Culture, Recreation and Tourism, Division of Archaeology, P.O. Box 44247, Baton Rouge, LA 70804. Available from publisher. All grades.

☐ **Knoll, Patricia C.** (editor)
1992 *Listing of Education in Archeological Programs: The LEAP Clearinghouse.*
Stock No. 024-005-01075-1, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Free from publisher. Teacher's reference for all grades.

☐ **Mallis, Jackie**
1982 *Ideas for Teaching Gifted Students.* Includes guides for social studies elementary units: Learning about Culture and Archaeology. Includes guides for social studies secondary units: Introduction to Anthropology, Prehistoric Times, and Ancient Civilizations. Multi Media Arts, Building E1, P.O. Box 180626, Austin, Texas 78718. Order #: I004 (elementary book), I005 (secondary book).

☐ **McCarthy, Gloria and Molly Marso**
1989 *Discovering Archaeology.* United Education Services, Inc., D.O.K. Publishers, P.O. Box 1099, Buffalo, New York 14224. Order #: ISBN 0-88047-194-8 (teacher); ISBN 0-88047-195-6 (student). Elementary through high school.

☐ **McNutt, Nan**
1988 *Project Archaeology: Saving Traditions (PAST).*
Sopris West, Inc., 1120 Delaware Avenue, Longmont, Colorado 80506. Available from publisher. Upper elementary and secondary.

☐ **Miller, Jeanne**
1991 *Archaeology Teaching Unit.* Thinking Caps, Inc., P.O.Box 17714, Phoenix, Arizona 85011. Available from publisher. Audience: Upper elementary and secondary.

☐ **National Park Service**
1990 *Everything We Know about Archeology for You to Use in Your Classroom.* U.S. Department of the Interior, National Park Service, Archeological Assistance Division, P.O. Box 37127, Washington, D.C. 20013. Free from the publisher. Audience: Adult.

☐ **National Trust for Historic Preservation**
1990 *Heritage Education Resource Guide.* National Trust for Historic Preservation, 1785 Massachusetts Avenue, NW, Washington, D.C. 20036. Free from the publisher. Audience: Teachers of all grades.

☐ **Peters, Kristen et al.** (editors)
1987 *Captivating the Public Through the Media While Digging the Past.* Baltimore Center for Urban Archaeology, 800 East Lombard Street, Baltimore, Maryland 21202-4511. Available from the publisher. Audience: Adult.

☐ **Rollans, Maureen**
1990 *A Handbook for Teaching Archaeology in Saskatchewan Schools.* Saskatchewan Research Council, 15 Innovation Blvd., Saskatoon, Saskatchewan S7N 2X8, Canada. Available from publisher. Audience: All grades.

☐ **Sanders, Karen K. et al.** (editors)
1986 *Archaeology is More than a Dig.* Tucson Unified School District, P.O. Box 40400, Tucson, Arizona 85817. Available from publisher. Audience: Grades 4-8.

☐ **Smith, K.C. and Francis McManamon** (editors)
1991 *Archeology and Education: The Classroom and Beyond.* U.S. Department of the Interior, National Park Service, Archeological Assistance Division, P.O. Box 37127, Washington, D.C. 20013. Free of charge from the publisher. Audience: Adult.

☐ **Smith, Shelly, Danielle Patterson, Kelly Letts, and Jeanne Moe**
1991 *Intrigue of the Past: Investigating Archaeology.* Utah Interagency Task Force on Cultural Resources, Salt Lake City, Utah 84119. Available from U.S. Department of the Interior, Bureau of Land Management, 2370 South 2300 West, Salt Lake City, Utah 84119. Audience: All grades.

☐ **Smithsonian Institution**
Teacher's Resource Packets. Includes Anthropology, North American Indians, and Local Archeology Resource Guide, District of Columbia, Maryland, and Virginia. Office of Public Information, Department of Anthropology, National Museum of

Natural History, Smithsonian Institution, Washington, D.C. 20560. Audience: All grades.

☐ **Stark, Rebecca**
1986 *Anthropology.* Student and teacher volumes. Educational Impressions, 210 Sixth Avenue, Hawthorne, New Jersey 07507. Order #: 35-OAP (teacher book); 36-9AP (student book). Audience: Grades 5-12.
1986 *Archaeology.* Student and Teacher volumes. Educational Impressions, 210 Sixth Avenue, Hawthorne, New Jersey 07507. Order #: 34-2AP (teacher book); 31-8AP (student book). Audience: Grades 5-12.

☐ **Wheat, Pam and Brenda Whorton** (editors)
1990 *Clues from the Past: A Resource Book on Archeology.* Hendrick-Long Publishing Co., P.O. Box 25123, Dallas, Texas 75225. ISBN 0-937460-65-6. Audience: All grades.

☐ **Williams, Martha et al.**
1989 *Strategies for the Classroom.* Society for Historical Archaeology Education Committee, 7129 Oakland Avenue, Falls Church, Virginia 22042. Available from publisher. Audience: All grades.

☐ **Zimmerman, Mary Ann**
1987 *Prehistory of Utah Social Studies Talent Training Activities.* Jordan School District, 9361 South Third East, Sandy, Utah 84065. Available from publisher. Audience: Grades 4 and 7.

CLASSROOM ACTIVITIES • TEACHING KITS • RESOURCE GUIDES

Note: **indicates New Mexico specific item

☐ **Anasazi Educational Outreach**. Anasazi Heritage Center, 27501, Highway 184, Dolores, Colorado 81323, *970-882-4811.* Instructional activities developed by the Anasazi Heritage Center in conjunction with the SW Board of Cooperative Service, Cortez, Colorado. Boxes of artifacts are available for loan to classrooms. Each box has a set of activities for students 1st grade through middle school to perform.

☐ **Archaeology is More Than A Dig.** Karen Sanders et al. Tucson Unified School District, PO Box 40400, Tucson, Arizona 85717.
Elementary to junior high.

☐ **Archaeology and Education: The Classroom and Beyond**. Edited by K. C. Smith and Francis McManamon. US Dept of the Interior, NPS, Archaeological Assistance Division, PO Box 37127, Washington, D.C. 20013.

☐ **Archaeology in the Classroom (Arizona)**. Upper elementary and secondary grades. Arizona Archaeological Council, c/o Shurban, Arizona State Museum, University of Arizona, Tucson, AZ 85721.

☐ ****The Big New Mexico Activity Book**. Grades 4-7. Ninety-four pages of activities covering rock art designs, kachinas, Hispanic folk art, Spanish missions, sand paintings, prehistoric and historic pottery designs, the natural world, native American art, and special attractions in New Mexico. Contact Walter D. Yoder, 8417 Capulin NE, Albuquerque, 87109. $9.95 plus $2.00 postage.

☐ **Classroom Archaeology**. A resource guide for science, history, and anthropology teachers, middle school to college level, designed by Nancy Hawkins. Package includes five sets of activities: Short Activities, Games, Record a Site, Analyze a Site, and Excavate a Site. Each has an illustrated lesson plan, vocabularies, bibliographies, and materials lists. Though designed for teachers in Louisiana, it can be adapted for use elsewhere. For more information contact Division of Archaeology, P.O. Box 44247, Baton Rouge, Louisiana 70804.

☐ **Can you Dig It?** A teacher's resource guide to archeological activities for the state of South Carolina but can be adapted to your needs. For more information contact South Carolina Institute of Archaeology and Anthropology, 1321 Pendleton Street, Columbia, South Carolina 29208-0071, 803/799-1963.

☐ **Dig into the Past: How Old is it?** Created by Patti Bell and Jeanne Miller and available from Thinking Caps, Inc., P.O. Box 1858, Bozeman, Montana 59771. Order # 3106. It is designed for upper elementary and secondary grades.

☐ **Dig into the Past: The Aztec**. Created by Patti Bell and Jeanne Miller and available from Thinking Caps, Inc., P.O. Box 1858, Bozeman, Montana 59771. Order # 3112. It is designed for upper elementary and secondary grades.

☐ **Education Resource Forum**. Listing of educational materials. Contact K. C. Smith Museum of Florida History, 500 S. Bronough St., Tallahassee, FL 32399-0250 or call 487-3711.

☐ **Everything We Know About Archaeology For You to Use in Your Classroom**. (1990) US Dept. of the Interior. National Park Service. Archaeological Assistance Division, PO Box 37127, Washington D.C. 20013.

☐ **Exploring Archaeology**. Created by Patti Bell for grade 5 students. Contact Patti Bell, P.O. Box 1858, Bozeman, Montana 59771.

☐ **Garbage Can Archaeology**. A two-page lesson plan, requires 1 hour, using school trash cans, designed to teach children about archaeological methods. Contact Arizona Archaeological Council, Archaeology for the Schools Committee, c/o Shurban, Arizona State Museum, University of Arizona, Tucson, AZ 85721.

☐ **Gateway to the Past Museum** soon will have 3 teaching kits available: Weaving, Rio Chama Time Line, and People and the Beaver. For more information contact Ghost Ranch Living Museum, Carson National Forest, Hwy 84, Abiquiu, New Mexico 87510, 505-685-4312.

☐ **Hispanic Culture Foundation** provides teacher guides and resource books, puppets, visuals, tapes, storytelling, and kits on New Mexico culture, healing herbs, and the Pueblo Revolt of 1680. Contact PO Box 7279, Albuquerque, 87194 831-8360.

☐ **Historic Preservation Division/Office of Cultural Affairs** soon will have a Dig Kit, including plans for a classroom mock excavation. Contact Villa Rivera Bldg, Room 320, 228 East Palace Ave., Santa Fe, 87501, 827-6320.

☐ **Intrigue of the Past: A Teacher's Activity Guide For Grades 4–7.** (1991). Contains 28 hands-on lessons including prehistory, the process of archaeology, and issues in archaeological conservation. The complete packet is given only at Intrigue of the Past Workshops in New Mexico. The Project Archaeology Team, Bureau of Land Management Heritage Education Program, PO Box 758, Dolores, CO 81323. Phone (970) 882-4811.

☐ **The Listing of Education in Archaeological Programs: The LEAP Clearinghouse.** Stock No. 024-005-01075-1, Superintendent of Documents, US Government Printing Office, Washington D.C. 20402.

☐ **Looking for the Past**. Program designed to teach young people ages 8-12 about what anthropologists and archaeologists do, as well as the role of museums. For more information, contact Haffenreffer Museum of Anthropology, Brown University, Providence, RI 02912.

☐ ****Maxwell Museum of Anthropology** has 10 teaching kits and trained volunteers docents. Free to schools within Albuquerque city limits, otherwise $20.00 plus mileage, three traveling teaching kits on the Mimbres also available, produced jointly with Bureau of Land Management. Geared to middle school students with many hands-on exercises, lessons dealing with palynology, stratigraphy, pothunting. For more information contact the University of New Mexico, Albuquerque, 87131-1201, 277-4404.

☐ ****Museum of New Mexico, Programs and Education** has an archaeology kit that explains what archaeologists do, what they might find, and why we should preserve and protect sites. Other kits, slide/tape presentations and/or speakers

provide information on New Mexico arts and cultures. Cost of mailing and supplies required. For more information contact PO Box 2087, 113 Lincoln Ave., Santa Fe, 87504-2087, 827-6460.

☐ ****New Mexico Archaeological Council Speakers Bureau**. Members share their knowledge of New Mexico's history and prehistory with schools, civic groups, and anyone with an interest in New Mexico's past. Directory of speakers and topics available. New Mexico Archaeological Council Public Education and Awareness Committee, PO Box 1023, Albuquerque, 87103.

☐ **Participate in Archaeology**. USDI brochure provides information about fieldwork opportunities; movies, television, and video programs about archaeology; magazines, journals, and other publications on archaeology.

☐ ****Pecos National Historical Park** is developing teaching kits, soon to be available. Contact PO Drawer 418, Pecos, 87552, 757-6414.

☐ **Protection of Archaeological Sites**. An activities packet designed by Patti Bell for children in grades K through 8. It is interdisciplinary and the activities can be used in total, individually, or integrated with science, social studies, language arts, and art. It is directed towards Arizona archeology but, with permission, can be modified to work for your classroom. There is a small fee for the packet. Contact Patti Bell, PO Box 1858, Bozeman, Montana 59771.

☐ **Pyramid Explorer's Kit**. Available from Running Press, 125 South 22nd Street, Philadelphia, Pennsylvania 19103. Order #: 80318. Audience: Upper elementary and secondary.

☐ ****State Historic Preservation Office**. Provides a Dig Kit, including plans for a mock excavation for the classroom. Contact Office of Cultural Affairs, Villa Rivera, Room 101, 228 E. Palace Ave., Santa Fe, 87503. 827-6320.

☐ **Teaching With Historic Places** (1993). Bulletin with a series of lesson plan inserts produced by National Park Service and National Trust for Historic Preservation. CRM volume 16, No. 2. Available from Judy Reed, National Park Service, PO Box 728, Santa Fe, 87504-0728. Phone 820-7218.

☐ **Unit 5, Cultural Resources, A Brief Introduction**. Available free from Wendy Davis, National Park Service, Alaska Regional Office, Archeological Assistance Program, 2525 Gambell Street, Anchorage, Alaska 99503-2892. Audience: Secondary.

☐ **Used Archaeology: Classroom Activities by Teachers for Teachers** (Georgia). Ed. by Rita Folse Elliot (1992). An educator's manual emphasizing a multidisciplinary approach to applying archaeological activities in curricula from English to science and math. $6.00 plus $1.00 shipping. Available from: Publication Secre-

tary, University of Georgia, Dept. of Anthropology, Baldwin Hall, Athens, GA 30602.

☐ ****Western New Mexico University Museum** has an Archaeology Chest that is presented to classrooms by a trained volunteer. Coming soon is the Mimbres Express with weekend teacher workshops and a traveling teaching kit.

AUDIO-VISUALS

VIDEO, SLIDE & FILM PROGRAMS

☐ **Archaeological Institute of America**
Archaeology on Film
PO Box 1901
Kenmore Station
Boston, Massachusetts 02215
Catalogue available.

☐ *Assault on Time*
National Audiovisual Center
8700 Edgeworth Drive
Capitol Heights, Maryland 20743
A video by the Federal Law Enforcement Training Center et al. Order # A18242 (VHS), A17331 (3/4 in.). 1990 High school and up.

☐ **CRM, National Park Service** (editor)
Audiovisual Materials for Preservation Education - CRM Supplement, Vol. No. 7.
CRM, National Park Service
Preservation Assistance Division
PO Box 37127
Washington D.C. 20013-7127
Listing of audiovisual materials available. 1992

☐ **Stephen Fosberg**
***Boots and Saddles*
Bureau of Land Management
1474 Rodeo Road
Santa Fe, New Mexico 87502-0115
505-438-7415
Fifteen minutes of footage containing the forts Bayard, Craig, Cummings, Selden, Stanton, Sumner, and Union. Briefly summarizes the forts' histories and stresses immediate preservation needs.

☐ **Bandelier National Monument**
***Current Archeological Research at Bandelier*
Bandelier National Monument
HCR-1, Box 1, Suite 15
Los Alamos, New Mexico 87544
505-672-3861
A film explaining the documentation process for a multi-year survey and field school excavation. 10-minute playing time. 1990

☐ **Bradley, Bruce**
1989 *Flintknapping*
Southwest Natural & Cultural Heritage Association
27501 Highway 184
Dolores, Colorado 81323
970-882-4811
As a prehistoric hunter, how would you go about providing tools needed for daily survival? This film demonstrates the fundamentals of the art of flintknapping. Watch as each piece is skillfully produced, duplicating this ancient skill as you reach a better understanding of our past (45 minutes VHS-by Interpark). Elementary to adult.

☐ **David Larsen**
Digging for Slaves
National Park Service
National Capital Region-Interpretation
1100 Ohio Drive, SW
Washington, D.C. 20242
602-622-1999
A look at our social and political history through archeology. Approximately 30 minutes.

☐ **Heider, Karl G.**
Films for Anthropological Teaching
Special Publication of the American Anthropological Association
1703 New Hampshire Ave., NW
Washington D.C. 20009
Films are arranged by geographical area and by topic, such as *Archaeological Dating: Retracing Time, The Archaeologist and How He Works, Archaeologists at Work, and Archaeologist in the Laboratory.*
or
The Educators' Guide to Free Films, including *The Origin of Mankind, Museum on the Hill, Of Time, Tomb, and Treasure: The Treasure of Tutankhamen.*

☐ **Hooge, Paul** et. al.
1986 *Ethics and Archaeology—Conflicts in Collecting*
Licking County Archaeology and Landmarks Society
PO Box 271
Granville, Ohio 43023.

☐ **National Park Service**
The Story of the Anasazi.
Southwest Natural & Cultural Heritage Association
27501 Highway 184
Dolores, Colorado 81323
970-882-4811
An introduction to the prehistoric Anasazi Indian culture of the Four Corners. Modern Pueblo Indian origin stories and elements of Anasazi culture are narrated, reenacted and illustrated with visual effects (25 minutes VHS). Early elementary to junior high.

☐ **Fran Day**
Return to the Titanic
National Park Service
PO Box 728
Santa Fe, New Mexico 87504-0728
505-988-6750

☐ **Fran Day**
Science, Salvage, and Scrap
National Park Service
PO Box 728
Santa Fe, New Mexico 87504-0728
505-988-6750
Copy of a BBC production concerning the many perspectives interested in abandoned shipwrecks.

☐ **Glen Kaye**
Silent Witness
National Park Service
PO Box 728
Santa Fe, New Mexico 87504-0728
505-988-6838
Twenty-eight minute video with curriculum guide on archeological preservation, ethics, and the law. Developed especially for junior high students and older.

☐ **Bandelier National Monument**
***Southwest Rock Art*
Bandelier National Monument
HCR-1, Box 1, Suite 15

Los Alamos, New Mexico 87544
Contains 80 slides with a script and available for loan.

☐ **Starbird, Robert and Daniel Rainey**
American History? It's Beneath Your Feet!
Media, Inc.
PO Box 496
Media, Pennsylvania 19063
ISBN 0-924580-24-0 High school and up. 1990

☐ **Tellens, Inc.**
The Hopi.
Southwest Natural & Cultural Heritage Association
27501 Highway 184
Dolores, Colorado 81323
970-882-4811
The sights and sounds of a vital, thousand year old Native American culture in northern Arizona, rarely seen by outsiders. (approx. 18 minutes VHS) Upper elementary to adult. 1991

☐ **Judith Propper**
Windows on the Past: Presenting America's Heritage
USDA Forest Service
517 Gold Ave., SW
Albuquerque, New Mexico 87102
Twenty-one minutes of examples of successful Forest Service heritage interpretation and educational programs.

COMPUTER SIMULATIONS

☐ **Price, Doug and Gitte Gibauer**
1990 *Adventures in Fugawiland: A Computer Simulation in Archaeology*
Mayfield Publishing Co.
1240 Villa Street
Mountain View, California 94041
Students rarely have the opportunity to participate in archaeological fieldwork. They can actually simulate the field experience and analyze the data they collect in an entertaining, educational, and inexpensive manner, so grab your electronic shovel and adventure in Fugawiland (5 1/2" disk IBM compatible). ISBN 0-87484-948-9. Upper elementary to high school level

☐ **Atkins,Victoria**
1991 *The Last Pictograph*
Southwest Natural & Cultural Heritage Association
27501 Highway 184
Dolores, CO 81323
970-882-4811
A special computer program that shows how an archaeological site can provide answers to our questions about the people who lived there and how vandalism destroys history forever. This disk will operate on any Apple II series computer with ProDOS operating system (public domain) 5 1/4" or 3 1/2" disks. Upper elementary to junior high.

☐ **Stephen Fosberg**
***History of Indian Peoples of the Four Corners Area*
Bureau of Land Management
1474 Rodeo Rd.
Santa Fe, New Mexico 87502
505-438-7415
Laserdisc tens of thousands of slides, photographs, video, and audio material. Fully interactive. Will present overview of Indian history and prehistory in the Southwest. Produced by Santa Fe Indian School students in partnership with Bureau of Land Management.

☐ **Stephen Fosberg**
1993 ***Hupovi Pueblo*
Bureau of Land Management
1474 Rodeo Road
Santa Fe, New Mexico 87502
505-438-7415
Interactive computer exhibit explaining the adaptation and history of an ancestral Tewa pueblo on the Rio Ojo Caliente. Available on Laserdisc. Produced by Santa Fe Indian School students in partnership with Bureau of Land Management.

☐ **Omohundro, John and Kathleen Goodman**
1993 *Physical Anthropology & Archaeology: Mystery Fossil II- A Physical*
Mayfield Publishing Co.
1240 Villa Street
Mountain View, CA 94041
For the Macintosh computer, it helps students learn what it means to think like a paleoanthropologist by comparing data and learning to make informed observations of fossil material. Provides a written manual with clues for student, a glossary of terms, a glossary of skeletal anatomy, and a dating chart that helps students as they analyze and mystery fossils into a phylogenetic scheme. For Macintosh Plus, SE or II computer. 3 1/2" disk. Middle school to high school.

☐ **Williams, Michael**
1991 *Anasazi Life*
Southwest Natural & Cultural Heritage Association
27501 Highway 184
Dolores, CO 81323
970-882-4811
Explores prehistoric life in the Four Corners as expressed in architecture and rock art. This disk will operate on any Apple II series computer with operating system (5 1/4" or 3 1/2" disks public domain). Upper elementary to junior high. Elementary to upper junior high.

GAMES

☐ **Simile II**
Bafá Bafá
PO Box 910
Del Mar, C 92014.
Elementary through middle school.

☐ **Simile II**
Rafá Rafá
PO Box 910
Del Mar, CA 92014
Elementary through high school.

☐ **Eells, Don**
1978 *Time Capsule*
Interact
PO Box 997-S2-91
Lakeside, CA 92040
Order # 5030. Elementary through high school.

☐ **Lipetzky, Jerry**
1982 *Dig 2*
Interact
PO Box 997-S2-91
Lakeside, CA 92040
Order # 5030. Middle school through high school.

☐ **Roehrig, Catharine**
Fun with Hieroglyphs
Metropolitan Museum of Art
PO Box 255
Gracie Station, NY New York 10028
Order #: D1130E. Elementary and up.

☐ **McLure, John**
1972 *Puzzle*
Interact
PO Box 997-S2-91
Lakeside, CA 92040
Order # 3061. Middle school through high school.

☐ **Vernon, Robert**
Talking Rocks
Simile II
PO Box 910
Del Mar, CA 92014
Elementary through high school.

AUDIO PROGRAMS

☐ **Bruchac, Joseph**
1991 *Keepers of the Earth.* Fulcrum Press
Native American stories as told by Joseph Bruchac from the book *Keepers of the Earth.* 2 audiocassettes (2 hours, 13 min.). Preschool to elementary.
1992 *Keepers of the Animals.* Fulcrum Press
Native American animal stories from the book *Keepers of the Animals.* 2 audiocassettes (1 hour, 47 min.). Preschool to elementary.

☐ **Nakai, R. Carlos**
Cycles: Native American Flute Music.
Quiet background flute music, excellent for storytelling time, gives the students a soothing feeling while setting the mood for a special activity during class time (45 minute cassette). Preschool to adult.
Earth Spirit: Native American Flute Music.
Soothing flute music, wonderful background for special activities (1 hour cassette). Preschool to adult.

Appendix 4 Evaluation Form

Discovering Archaeology in NEW MEXICO

Please constructively evaluate this book based on its educational value for yourself and your students. There are three pages to this evaluation form. Please mail it in the enclosed envelope or to the address provided.

_____ _____

Name Grade Level(s) you teach

Please rate the following: **1 Excellent** **2 Good** **3 Average** **4 Fair** **5 Poor** **6 Not Used**

Student Section

Chapter **1**	1	2	3	4	5	6
Chapter **2**	1	2	3	4	5	6
Chapter **3**	1	2	3	4	5	6
Chapter **4**	1	2	3	4	5	6
Chapter **5**	1	2	3	4	5	6
Chapter **6**	1	2	3	4	5	6
Chapter **7**	1	2	3	4	5	6

Appendices

1 Teacher Lesson Plans	1	2	3	4	5	6
2 References	1	2	3	4	5	6
3 Resources For Teachers	1	2	3	4	5	6
Other _____	1	2	3	4	5	6

Readability

◆ **Typeface**: Were your students able to read **Discovering New Mexico** with ease? Yes Somewhat No

◆ **Reading Level**: Was it appropriate for your student's grade level? Yes Somewhat No

◆ **Subject Matter**: Was it appropriate? Yes Somewhat No

Graphics

◆ **Overall format**: Was it easy to use? Yes Somewhat No
How would you improve it?

◆ **Graphics placement**: Is placement of the graphics appropriate to the information in each chapter? Yes Somewhat No

◆ **Context**: Do the illustrations aid the understanding of the text? Yes Somewhat No

◆ **Readability**: Is the illustration type easy to read? Yes Somewhat No

How is the amount of illustrations in the chapters?
Just right More Fewer

How is the mix of charts, maps, illustrations, photographs?
Just right More Fewer

◆ **Omissions**: Are there concepts, ideas, places, or things that you believe need graphic support in the book? Please list them, chapter by chapter. Use a separate sheet if necessary.

General

- What did you find most useful for you about **Discovering New Mexico**?

- Will you use **Discovering New Mexico** in your classroom? Explain.

- For later revisions of **Discovering New Mexico** (after 1995)– what additions would you like to see?

- What would you delete?

Additional space below for your comments

Thank You!

If a return envelope is not provided, please mail this evaluation form to:

BLM Heritage Education Program
Project Archaeology Team
P. O. Box 758
Dolores, Colorado 81323

Appendix 5 Glossary

adobe (uh-DOH-bee) Bricks made out of a sandy kind of clay and sometimes dried grass. The adobe bricks are dried in the sun and used to make homes and buildings.

Archaic (ar-KAY-ick) Ancient, old, or surviving from an earlier people. Archaic can also mean relating to an earlier time.

architecture (AR-ki-TEK-chur) A style or method of building.

artifact (AR-tih-fakt) Any object made or used by people or showing human workmanship can be called an artifact (*arte* = by skill; *factus* = to do).

conquistador (kon-KEES-tuh-door) A Spanish word meaning *one who conquers.* The Spanish who explored and plundered the New World were called *conquistadors.*

culture (KUL-chur) The customs, beliefs, and ways of life of a group of people.

distribution (dis-truh-BU-shun) The act of taking something and spreading it out.

domesticate (doh-MESS-tih-kate) To tame or make usable for human beings.

epidemic (ep-ih-DEM-ick) A time when large numbers of people have the same disease.

ethnohistory (eth-no-HIS-to-ree) The study of the history of a native people.

excavate (ECKS-kuh-vayt) To carefully remove layers of dirt and record the objects found to learn about the past.

excavation (ecks-kuh-VAY-shun) The act of carefully removing layers of dirt to find objects made by people from long ago.

extinct (eks-TINKT) No longer existing or active, gone out.

extinction (eks-TINK-shun) bring to an end, wiping out, or destruction.

features (FEE-churz) Things made by people and left behind like trash dumps, outhouses, and the remains of buildings or structures. These can also be parts of structures like benches and hearths. Features were not movable. They provide clues for archaeologists about life-styles and culture.

flint knapping (flint NAP-ping) A method used to make spear points, projectile points, scrapers, and knives from stone. A stone or antler is struck against another stone, making smaller pieces of stone fall from it. The flint knapper continues to knock off chips or flakes of stone until the object is complete.

history (HIS-to-ree) A written story or record of what happened in the past. In the Americas there were records written by the first Europeans who came and wrote about the people and events they saw. The period of history follows the time we call "prehistory." History can also be a tale, story, or a written description of events. These written descriptions often explain why the events happened from the viewpoint of the author.

hunting-gathering (HUN-ting GATH-er-ing) A method of survival where people depend on wild animals and plants for food.

hypothesis (hye-POTH-i-sis) A proposed explanation that can be tested by further investigation.

irrigation (ear-rih-GAY-shun) The act of supplying land with water.

life-style (LIFE-STILE) the way that a person or group lives.

life way A way of living that is typical of the culture.

loot (LUTE) To dig up a site in order to find artifacts to sell.

mano/metate (mah-no, meh-TAH-tay) In the Southwest, *mano* comes from the Spanish word for "hand" and is a small grinding stone. The mano is used to grind corn and grain on a larger stone, the *metate,* to make flour.

megafauna (MEG-a-faw-na) Large animals of the Pleistocene.

mortar (MOR-tur) A large stone with a bowl shaped basin used to grind seeds.

nutrition (new-TRISH-uhn) Food that helps plants or animals grow.

outlier (OUT-lye-ur) A Chacoan great house located outside Chaco Canyon.

pestle (PES-'l) A long round stone used to pound seeds in a mortar.

Pleistocene (PLYS-toh-seen) The Ice Age(s) and period in the world's history from about one million years ago until about 10,000 years ago. During the Pleistocene, much of the earth was covered with ice.

prehistory pree-HIS-to-ree) The time before there were written records or before the Europeans came and wrote about the people and events in America is called

prehistory. Prehistory can also mean the study of prehistoric man or existing in times before written history.

redistribute (ree-dis-TRIH-bute) To take something that has already been distributed and spread it out again.

roomblock (RUME-blok) Clusters of rooms that shared walls.

seasonal round (SEEZ-'n-ul ROWND) The pattern of moving from one camp to another following the natural cycle of ripening food.

site (sight) A location, place. "Site" is a word used by archaeologists for locations where prehistoric and historic people used to live in or do things at. Sites are places where human activity happened and their things were left behind.

siege (SEEGE) One group surrounds or blocks off a village or position of another group in order to cut off food, water, and supplies in order to force a surrender.

stratigraphy (strah-TIG-ruh-fee) The science of studying layers of materials, as in rock layers in the Earth or deposits in archaeological sites. Remains of human activity and dirt become buried over time. The layer on the bottom is the oldest, the layer on the top is the youngest. The dirt, of different layers, is often colored differently. (*strata = layers; graph = written*)

stratigraphic (STRAT-uh-graf-ick) having layers.

subsistence (sub-SIS-tens) the act of maintaining one's life. The Paleo-Indians' subsistence was by hunting and gathering.

teosinte (Tay-oh-SEEN-tay) A tall, wild grass of Mexico and Central America. Scientists consider it to be an early form of maize or corn. (*teotl = god + cintl = dried ear of maize*) Native people in Mexico cultivated teosinte until it improved and became corn

unit pueblo (YOU-nit PWEB-low) A small pueblo with several rooms and a kiva.

Appendix 6 Index

C

D

E

F

G

H

I

J

K

L

M

N

O

P

R

S

T

U

V

W

Z

☆ U.S. GOVERNMENT PRINTING OFFICE: 1997-576-966/45000


FARMINGTON
San Juan River
Chaco Culture National Historical Park
Bandelier National Monument
Taos
SANTA FE
Gallup
Rio Grande
Canadian River
Tucumcari
ALBUQUERQUE
El Malpais National Monument
Socorro
Pecos River
ROSWELL
White Sands National Monument
West Fork Gila River
Rio Grande
LAS CRUCES
Carlsbad
Carlsbad Caverns National Park
64
285
25
40
60
54
70
10

NEW MEXICO